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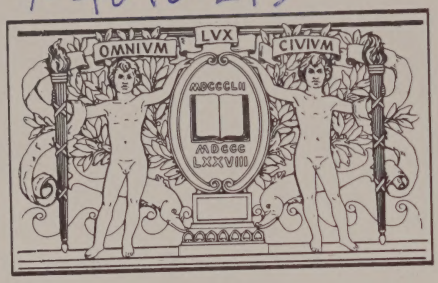

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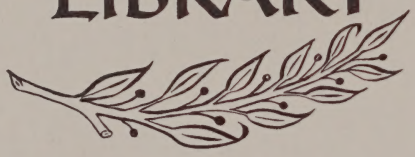

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JANUARY

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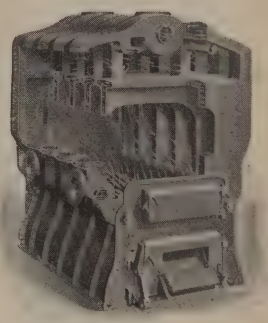

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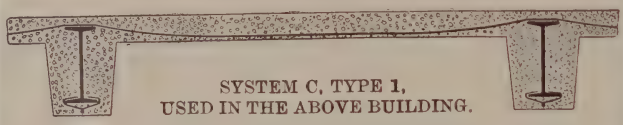

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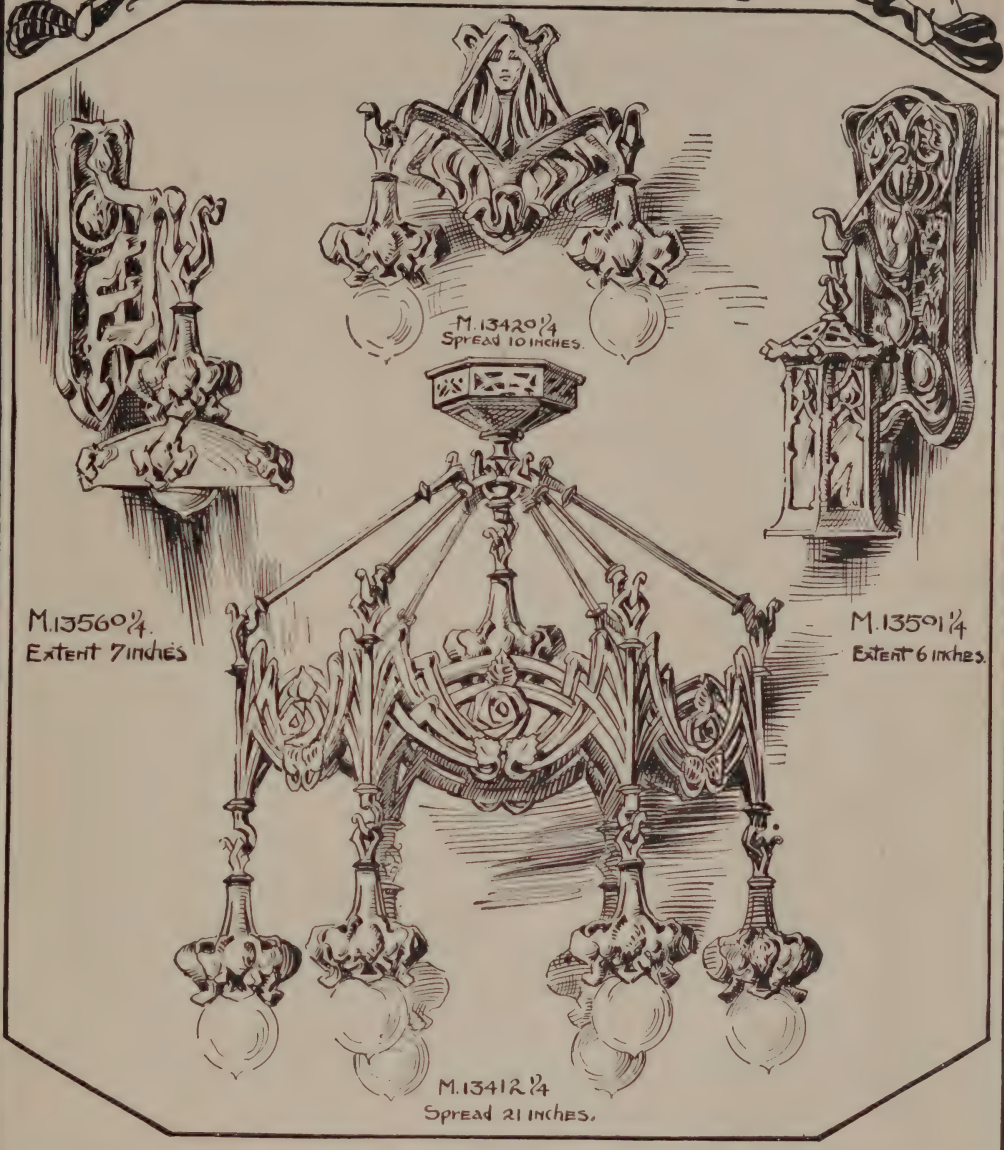

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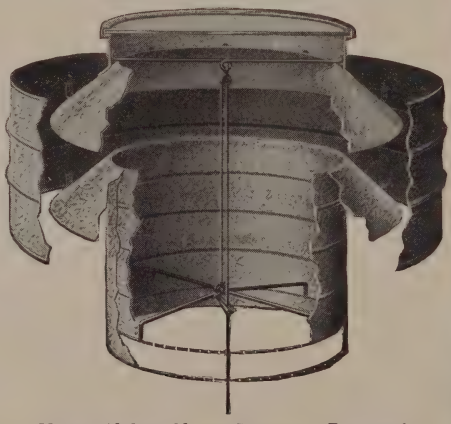

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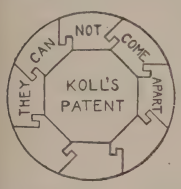

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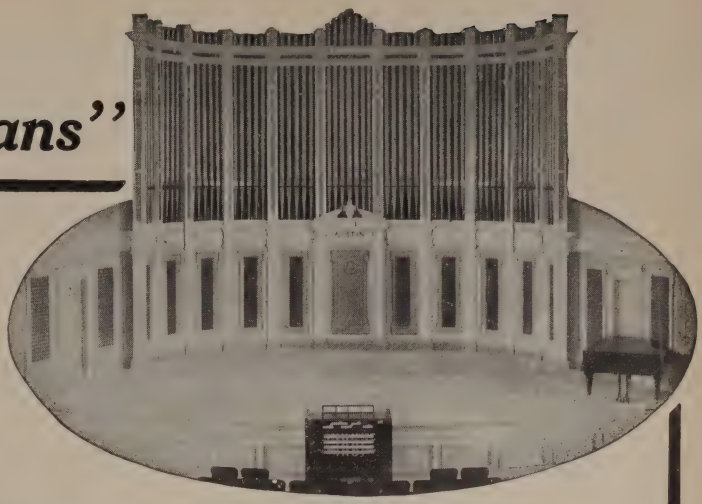

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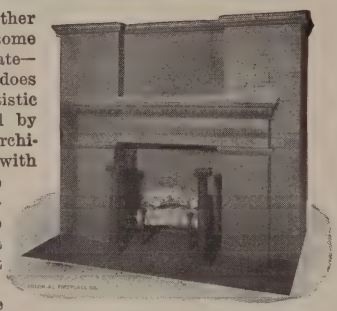

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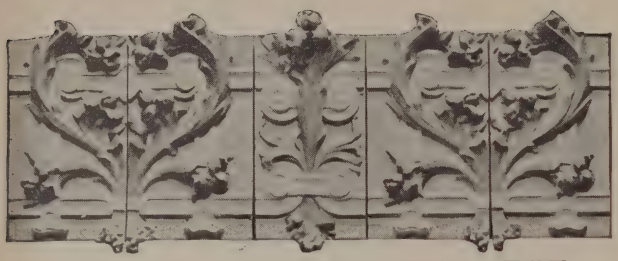

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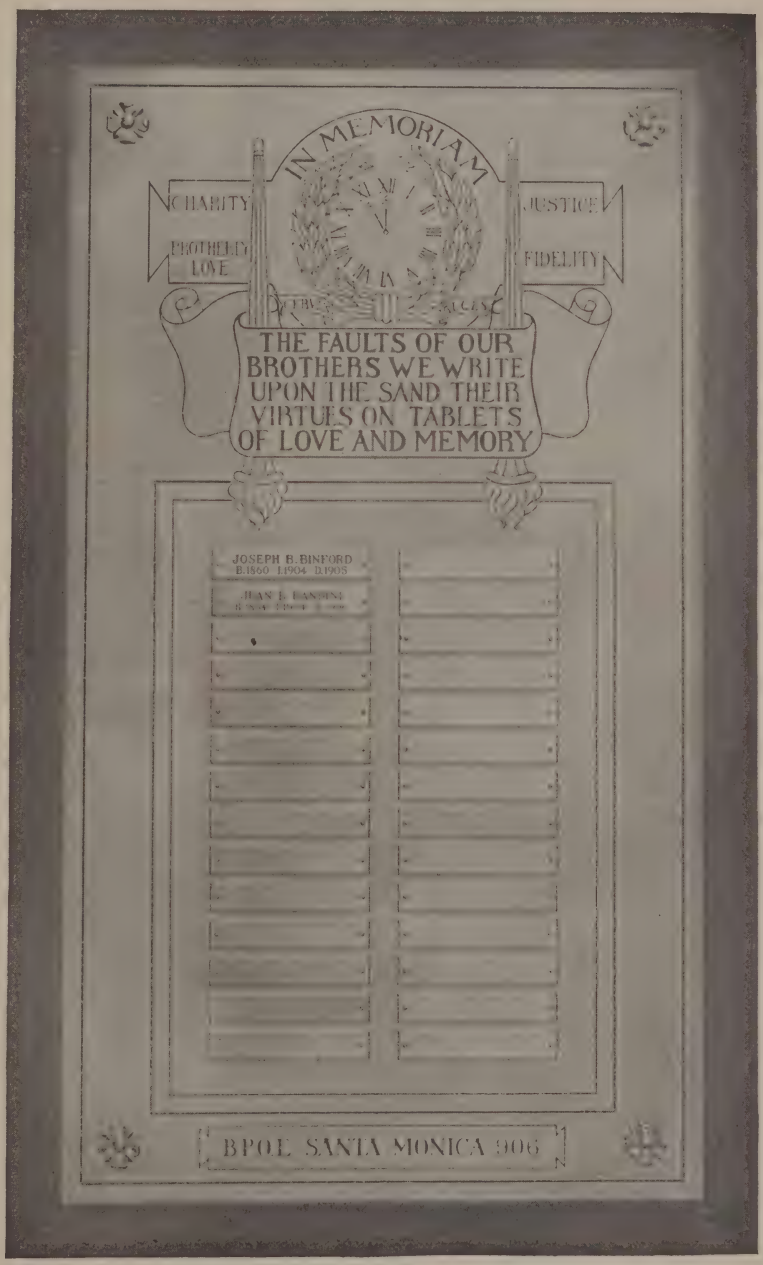

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The American Architect and the American Public

The Case of the McKinley Monument

The American architect surely has the right to charge American public opinion with the commission of a palpable and striking injustice. All modern American artists suffer somewhat from lack of appreciation; but the architect suffers from more than a want of appreciation; he suffers from a gross wrong. His name is in the minds of the people rarely identified with his work. His professional brethren and a few thousand acquaintances and clients are in a position to attribute the most important modern American buildings to their responsible designers. The vast mass of business and professional men are in no such position. They no more associate a building with its architect than they associate a particular suit of clothes on the back of a friend with a particular tailor. The fact that a certain architect designed your building may be of some interest to you, just as it is of interest to you that your haberdasher and plumber are competent and honest, but it is not supposed to interest anyone else, unless such a person happens to need a new haberdasher. Indeed the architect is in a worse position in this respect than are many tradesmen, because the latter are permitted to advertise their connection with a good article or piece of work, whereas the former, as a professional man, is denied this privilege. No matter how much people gaze at his buildings they rarely think of them as the work of a man or a firm, and the poor designer is not even permitted to scratch his name on some corner-stone, so that he who searches may find.

As already intimated, this particular grievance of the architect must be carefully distinguished from the lack of appreciation which is visited upon artists in general. The painter, the sculptor and the man of letters may not obtain the reputation or the recognition to which they are entitled, but the appreciation they receive is within its limits genuine and emphatic. Any painting which is distinguished at all, is distinguished even by the vulgar, as the work of a particular man; and its perpetrator is allowed to scrawl his name on the canvas. A sculptor also can declare on some part of his bronze or marble that he did it, and the popular recognition that a certain statue has been committed by a certain man is much more general than it is in the case of the architect. As to the playwright, the size of the letters upon which his name appears on the bill-boards may compare to the size of the letters in which the names of the managers and the star are printed very much as the Parkhurst Church will compare to the tower of the Metropolitan

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Building; but small as is the lettering, it may still be read. The architect alone neither signs his work nor has his name written upon it by the persistent curiosity of public opinion.

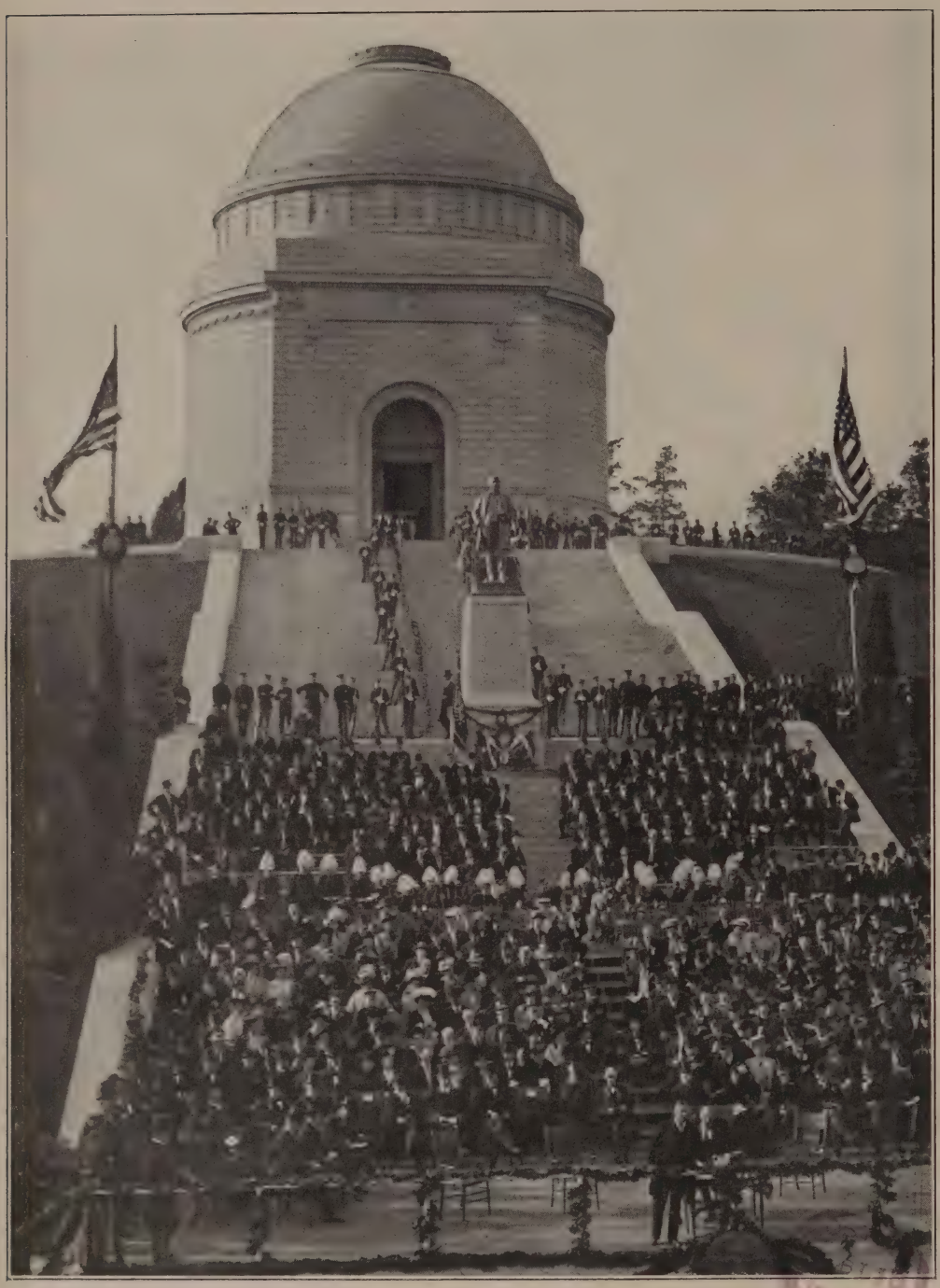
Of course there can be no doubt that the general popular interest in architecture has largely increased during the past fifteen years; and there can be no doubt, also, that the architects, individually, have received a share of this augmentation of popular interest. But they have not received anything like a full share; and, perhaps, the best indication of this fact can be found in the way they are treated by the popular periodicals. The rise and spread of illustrated journalism has created an enormous demand, particularly on the part of Sunday supplements and the like, for pictures of all kinds; and among these pictures many photographs appear of contemporary residences, hotels, sky-scrapers and other buildings likely to provoke popular interest. In the accounts of these buildings the names of the architects rarely appear. Sometimes at the end of the article the announcement will be made that the building cost $5,000,000, that its builder was the Celestial Contracting Co., that its decorator was Henry Blumenpohl, and its architects Messrs. Fish & Fish; but the architect does not bulk any more conspicuously in the account of the building than does the plumber. In the great majority of cases his name is not mentioned at all; and this practice is followed not merely by daily newspapers, but by periodicals, such as Collier's, who ought to have a better understanding of the injustice of such an omission. That journal recently contained a page full of illustrations of the large hotels recently constructed in New York City; but in none of the legends accompanying them did the name of the architect appear.

The attitude of the popular periodicals towards architecture is of the utmost importance, because they, and they alone, are in a position to accustom public opinion to associate the name of a conspicuous building with the name of its designer. They, and they alone, are in a position to convert the architect from the position of a tail-ender into the position of a head-liner; and they can do so by the simple but efficacious means of putting his name in the head-lines. They are under no compulsion to publish the pictures of buildings unless their readers are interested therein; but if they publish such pictures they should do so in a manner which is fair to the men who are responsible for their illustrations. They should do the architect the same justice that they do the painter, the playwright or the musician. A picture exhibition or a musical performance is reviewed even for the daily journals by men who do nothing else—by professional critics, who are supposed to know their subject and to follow carefully the work of all contemporary performers. The task of criticism may be well or ill done, but at least it is presumed to be a serious occupation, which deserves the services of an expert. But when a new residence or hotel is published, any ignorant reporter is supposed to have the information and the judgment sufficient to describe the building; and such a thing as criticism is, of course, not even considered. Instead of helping to popularize the architect and to bring about the association of his name with his work, the popular periodicals lend the influence of their hypnotic control over the popular consciousness to the perpetuation of the unjust and benighted popular attitude towards architectural work.

One of the most flagrant instances of such injustice done to an architect was the treatment received by Mr. H. V. B. Magonigle, when the McKinley Memorial was dedicated. This dedication took place in the fall, and the ceremonies were attended by a large and representative body of spectators. The President of the United States delivered the address. Accounts of the ceremony, together with illustrations of the memorial, were published in all the important daily journals throughout the country. The whole affair was an impressive public tribute, evoked by the affection which the late Mr. McKinley aroused and by the distressing futility of his death at the hands of a crazy assassin. The me-

morial itself had been paid for largely by means of a widespread popular subscription, and on the day of the dedication the eyes of the whole country were fastened upon the ceremonies which were taking place at Canton, Ohio. It would seem as if the man who had designed this memorial should have received his share of popular attention; but so far as one could judge from the newspaper reports, his name was scarcely mentioned. The address of the President of the United States did not contain a reference to him and not more than a passing reference to his work. The newspapers published pictures of the monument, but for the most part they left the identity of its designer to the imagination of their readers. The writer examined all the published accounts of it which he could find, and the name of Magonigle appeared in so few instances that their influence was practically negligible. A man who was impressed by the beauty of the monument, and who wished to learn the identity of its author, would have had a difficult time in unearthing the information. Collier's gave a certain prominence to the name of the sculptor of the figure of Mr. McKinley, Mr. Niehaus, whose share in the effect of the total memorial, was as one to one hundred; but it was silent as to the name of the really responsible artist. It looked almost as if there was a conspiracy on the part of the press to deny to the architect the recognition to which his work had entitled him.

Of course, there was no such conspiracy. It was ignorance rather than malice which prompted this gross piece of injustice. The official speakers and the representatives of the press, like other good Americans, simply were not in the habit of associating the name of the architect with the enduring architectural monument; and as that name was one which is better known to the lovers of good architecture than it is to the general public, it did not strike them as important. But explain it as you will, the gross injustice remains. The monument designed by Mr. Magonigle is a noble and impressive piece of public architecture. It will not merely perpetuate the memory of the late Mr. McKinley, and testify to the affection which he aroused among his contemporaries, but it will by its simple and sober beauty, actually enhance for future Americans the lesson of his life and his death. The architect has in his memorial added something fine and enduring to the influence of the dead statesman, and the dedicatory ceremonies should have celebrated, not merely the memory of a man who had died in the service of his country, but also the creation of a work of living beauty. The McKinley monument is not merely a tomb. It is in its way a temple, which will arouse in the bosoms of future Americans an aspiration as well as a memory; and it is one of the very few public memorials of which such a statement can be made. If President Roosevelt in his address had enlarged upon this thought instead of pounding with his sledge-hammer upon the old anvil of corporate abuses, he would have been teaching the public a lesson which it needs even more than it needs the lesson of reform in respect to the public supervision of incorporated wealth. No doubt the American people really want heroic deeds and noble personalities properly perpetuated, but if so, they must be prepared to rear memorials which are worthy of the occasion or of the man commemorated; and about the poorest preparation they can make for such a consummation is the flagrant neglect of the men who are competent to build such memorials. While an artist does not need prizes, he does need recognition, sympathy and appreciation, and it is to be hoped that future Americans will testify to the enduring beauty of the McKinley Memorial by a contemptuous glance at the contemporaries who failed to recognize its adequacy to express the principles for which it stands and rewarded its designer with neglect.



THE McKINLEY MONUMENT—PRESIDENT ROOSEVELT DELIVERING HIS ADDRESS AT THE DEDICATION.

Canton, Ohio. H. Van Buren Magonigle, Architect.
Charles H. Niehaus, Sculptor.

(From stereograph copyright 1907 by Underwood and Underwood, New York.)

A National Emblem of Liberty

The Memorial Arch

In a modern city, especially an American city, would it be possible for us to point to any one building as the special emblem of its historic life, its activities, its liberties; as the monumental signboard of its chartered rights? In the case of New York would it be the City Hall or Tammany Hall, Columbia University or the Stock Exchange?

In our democracy, with its go-as-you-please development, its casual meeting of the problems of the day as they arise, and its carelessness of posterity, anything of this sort has been more accidental than deliberately planned. If we can point to the Boston State House, and to Independence Hall in Philadelphia, it is not because they were intended to be memorial monuments when they were built, but only on account of the great facts connected with their subsequent history. Modern thought, especially with us, seems to have had slim use for symbols as such, however enthusiastic it may grow over patriotic associations.

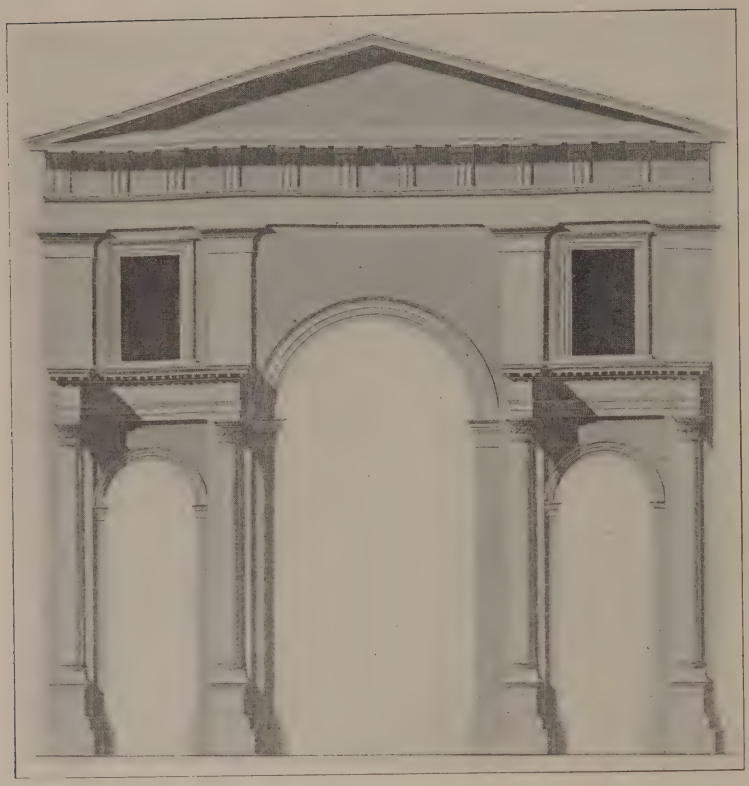
But does it harmonize with the significance of our history and our passionate patriotism that our grandchildren should be obliged to consult musty histories, files of grimy newspapers, or other equally perishable, undignified and unofficial records, if they want to learn about the Charter of Greater New York or the circumstances of the foundation and organization of our other great cities? Even worse things might happen. Suppose, for a moment, they should happen upon a file of the *New York Journal* in their search after truth! But that would be another story!

Lest we forget. With our inroads of foreign millions it is not enough to teach school children patriotic songs and to give "fake" examinations in the Constitution to illiterate grown-up candidates for citizenship. Let us, then, find a remedy: some record, permanent, unimpeachable, and for all to see; one that shall be prominent as the Statue of Liberty. Let it be a monument of but one type, that shall be set up in every State in the Union, and in every large city, inscribed with the dates and circumstances of their foundation and local glory; decorated and surrounded with statues of their great men.

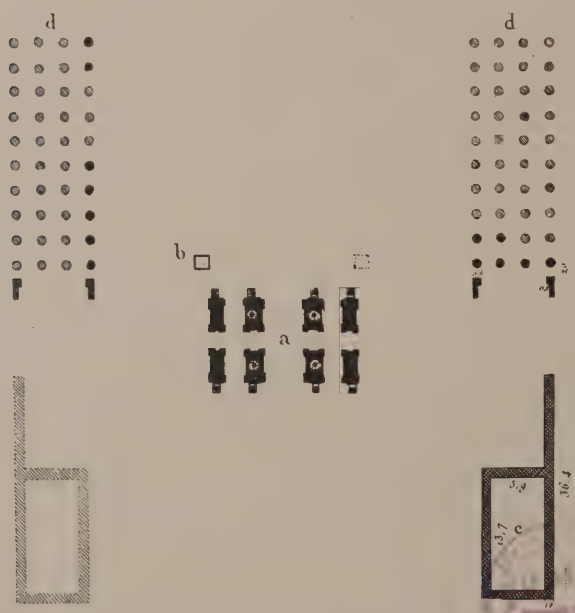
The Romans did this very thing, and to do it invented the Memorial Arch. We are like them in our grasp on the practical problems of government, our love of law, our passion for equality, our ability to combine a conservative imperialism with local liberties. Let us follow them in adopting the Arch of Liberty. As with them, let the Arch follow the Flag. We can certainly spare some of our surplus to secure permanent records of our national and civic life.

Before showing how the Romans carried out this idea, I should say that this special significance of what is commonly called the triumphal arch of the Romans is a new discovery that I have made. This is not the place to prove it. It is but another proof falling finally into its real place, of the high value set both upon Roman citizenship and upon the municipal liberties of each city within the Roman domains. We are too apt to fancy they were swallowed up in Rome's imperialism.

We must first of all twist ourselves free from familiar thoughts about the arch. Our artists and our citizens have associated it with the memories of dead heroes and presidents, with Washington and McKinley, with living leaders, like Dewey, with the countless unnamed victims of our great struggles, as in the Brooklyn Arch. This association with wars and great memories is based on such famous models as the arches in Rome itself to Titus, Septimius Severus and Constantine, spectacular examples of a very small sub-class of apparently triumphal arches; a mere drop in the bucket compared with the mass of examples that have no fundamental con-



ANTINOE, COLONY ARCH OF HADRIAN.



ANTINOE (EGYPT)—PLAN OF SQUARE AND CITY ARCH.

nection with wars or persons. It is easy to see how these particular arches should, from their beauty and situation, have haunted the imaginations of artists and people throughout Europe, and now in America. But a few examples will show what the arches always really meant to the Roman citizen: that they marked the right to be free, rather than the tramp of the legions.

When more than a century ago, the Emperor Napoleon sent out his famous Commission of learned men to study the antiquities of Egypt, its members in their progress up the Nile came upon a sight that puzzled them completely. It was the ruins of a large city, thoroughly late Greek in style, evidently built in Roman times; so classic in a certain late type that it seemed as if transported bodily from the coast of Asia Minor or of Syria to be set down on the banks of the Nile, an oasis in the clear and continuous monotony of Egyptian art, during its long life of some five thousand years; an almost unbelievable contrast!

The mystery was solved when it was found that this city was Antinoë, built by the Emperor Hadrian, in about one hundred and thirty A. D., to be the centre of Greek and Roman culture in Upper Egypt, as Alexandria was on the seaboard. The legend of its foundation is poetic. It was named after Hadrian's favorite, Antonioüs, that Bithynian youth whose dreamy and placid beauty, somewhat melancholy in its un-alert perfection, was reproduced by all the great artists of his day, and is even familiar to us in numerous statues, busts, reliefs and gems. Around this picturesque figure there clustered one of the latest of classic legends. To Hadrian, the ardent apostle of the revival of Greek culture, the rebuilder of Athens, the traveller in all lands, and the enquirer into all things, there was but one real ideal, and the perfect youth, Antinoüs, seemed the material incarnation of its rhythmic beauty.

When, with Antinoüs in his train, the Emperor passed through Egypt, only recently a hot-bed of sedition, it was not merely a disaffected population that he saw. On every side he was oppressed by monuments that were the very antithesis of Hellenism, creations of an art that must have seemed to him not only uninspired and material, but often grotesquely hideous. The countless images of animal and bird-headed gods, the same whether carved under the Pharaohs contemporary with Abraham or under Cleopatra, seemed in their eternal duration to mock the evanescent beauty of the Hellenic spirit and its present despairing effort of galvanized life. Was it fact or fancy that, in the very midst of this nightmare, as the imperial procession advanced through Upper Egypt along the sluggish Nile, Antinoüs in an excess of passionate melancholy threw himself into the stream? This, at least, is one interpretation of the legend. But Hadrian's spirit turned the suicide into an emblem of hope and resurrection, by founding this memorial city upon the spot and naming it after his favorite, whom he enrolled among the gods of Egypt. The French archæologists discovered it, hidden in the undergrowth.

Hadrian called Greek artists to build it, and peopled it with Neo-Hellenes, as they called themselves, Greeks from Attica. Highways were constructed to connect the new city with the rest of Egypt, and everything done to give it material prosperity. These aliens in Egypt missed none of the accessories to their native life and customs. The city was built in broad avenues bordered by hundreds of high columns. There was a hippodrome for athletic games, a theatre for the plays of Greek poets, public baths and gymnasia to train the youth, a temple to the local hero-god, Antinoüs, whose statues crowned memorial columns and decorated the great square on the banks of the Nile.

It was here that a broad colonnaded avenue ended in an arch, which was built with greater care than any other part of the city. To fully appreciate the architect's plan one must pass through it and walk as far as the river bank. Then, facing about, one must have had in Hadrian's time, something like the scheme of the square of St. Peter's in Rome, with its gigantic colonnades reaching out in their curved lines, like huge tentacles, on either side of the façade of the church.

THAMUGADI (TIMGAD), COLONY ARCH OF TRAJAN.

But at Antinoë the two wings are in straight lines, four columns abreast, and flank a gigantic triple arch preceded by a memorial column on either side. These wings reached as far as the river. We can fancy that in this beautiful square and under these broad shaded colonnades the Greek citizens often gathered. It was probably their political forum; in the shadow of the arch that proclaimed their origin and civic rights, and did honor to the hero from whom they had their name, as, in their native land, at Patrai, the gate of the Market-place was crowned with a statue of the city demi-god and founder.

Here then, at Antinoë, the architect who laid out the city planned the arch as its dominant note and symbol.

Without leaving Africa, but passing westward, we enter quite different surroundings, as militant as those of Antinoë were peaceful. The now sterile and sandy regions of North Africa, partitioned among the modern States of Tunis, Algeria, Tripoli and Morocco, were under the Roman Empire even more uniquely the granary of the world than our Western states are at the present time. Rome and all Italy starved when the grain fleet did not come in on time from the African ports to stock the great government warehouses. It was one of the most masterly achievements of the Empire that it created here, out of chaos and sterility, broad regions of advanced culture; and this was made possible by those colossal Roman works for storing and transmitting water which we ought now to study if we want to understand how to apply such engineering feats to our own national problem in the arid regions of the far West which our Government is planning to reclaim.

GERASA (DJERASH)—THE COLONY ARCH (SYRIA).

For nearly two centuries the Roman occupation of Africa, beginning at the coast, was pushed steadily southward: cities were being continually founded, military camps set, and ever advancing new lines of frontier watch-towers established to hold the new territory, reclaimed both from the desert and the nomads. One of the new colonies was Thamugadi, whose ruins are now called Timgad, in the foot-hills of the great range of the Aures mountains of Southern Numidia, beyond which the dreaded Moorish raiding tribes were still in unchecked possession. Around Timgad were grouped other cities, Mascula, Ver-

ecunda, Theveste, all built at about the same time under the Antonine Emperors: here, too, was the great permanent camp at Lambaesis, which contained the army that defended this region that was made one of unbounded fertility and delight.

Timgad, at 3,000 feet above sea level, where six highways converged, guarded the main pass across the range and served also as starting-point for expeditions against the Moors. The uncovering of its ruins by the French government is now being completed and has made of it the Pompeii of Africa. The city, except that it is in ruins, is now practically as it was in the second century, with its forum, basilica, theatre, temples, market-halls, gates. Evidently it was a considerable centre of culture.

The most conspicuous and sumptuous of its monuments, perhaps the most striking of African arches, is the so-called "Arch of Trajan," in reality the memorial arch of the new colony. Stripped of its formulas, the inscription in the attic of this arch said: "The Emperor Trajan, in his fourth year, founded this colony of Thamugadi, called (after his sister) 'Marciana,' and (after him) 'Traiana; by the hands of the Third Legion called 'Augusta.' It was dedicated by the imperial legate Munatius Gallus." This was the official statement as to the time and circumstances of the foundation, borne aloft by a monument as conspicuous in its environment as the Cathedral or Town-Hall in a mediæval city. Placed originally on the city's boundary line, across the main approach, the expansion of the population soon left it, on a gentle rise, guarding the approaches to the Forum. It will always be connected with Trajan's great work in extending and guarding the southern borderland of Rome in Africa, evoking a picture of tremendously fertile and well-directed energy.

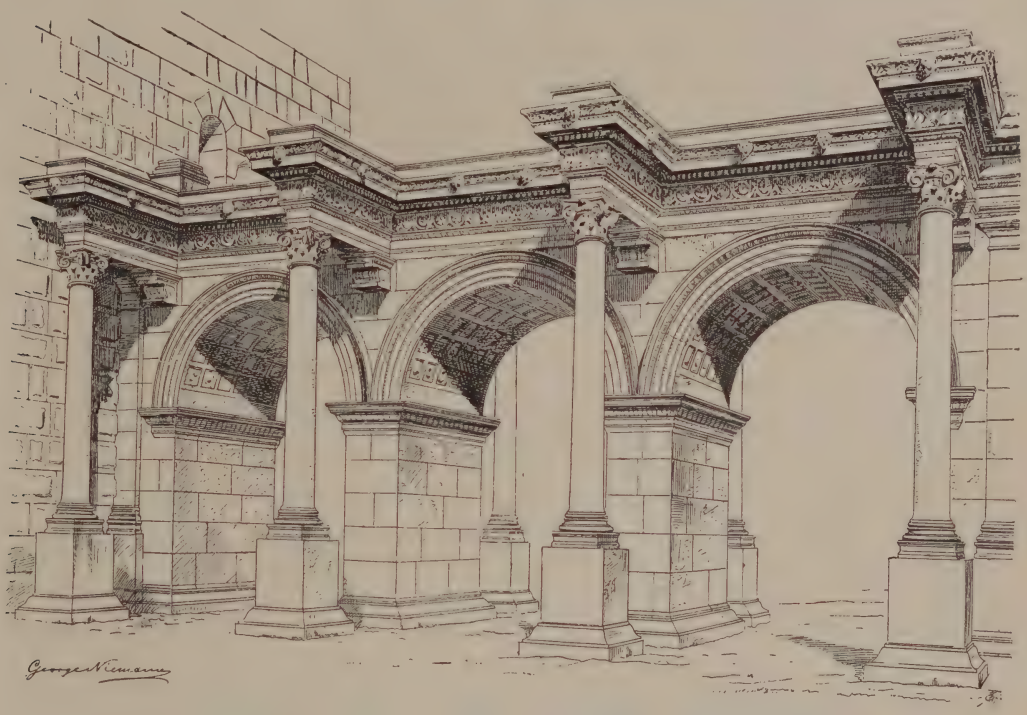
PATARA (LYCIA) CITY ARCH.

If the arch of Antinoë was emblematic of Hadrian's character and reign, the embodiment of peace without effort and of the dreams of a Philhellene; the arch at Thamugadi built, like the entire city, by the legionary soldiers, is typical of his uncle Trajan's greater and more masculine energy, conquering by war to rebuild by the constructive methods of a peace ensured by armed legions. These legions during the long years of peace were so taken up with the building of cities,

roads, bridges, aqueducts and other great public works, as to make of the Roman armies not the lazy drones that drain the vitals of modern European nations, but the best instances of creative energies directed in large bodies for the public good—large labor-unions on a purely unselfish basis.

Leaving Africa for a moment, we will pass eastward to the province of Syria, bulwark of the empire against the Persians and Parthians, and inheriting a semi-Hellenic civilization and art that made her one of Rome's principal teachers. At her capital, Antioch, the emperors often established their headquarters. Yet even here Rome showed that she had a mission. On the easternmost borderland, reaching out toward the Syro-Arabian desert, was a region that had always been, even more than it is now, under Turkish misrule, a prey to nomad tribes, which made any settled civilization impossible, where it had not come under the sway of a high-spirited North-Arabian dynasty centered in the rocky fastness of Petra.

It was also owing to Trajan's policy that the Roman grasp upon this territory became firm and final, that it was girdled to the East and South with a long line of forts to keep the nomads out. Cities and villages then sprang up like mushrooms. Their ruins are still keeping archæologists busy, for ever since the Arabs swept over the country in the seventh century, it has been largely given back again to the dwellers in tents, and the land is strewn with dead cities.



ATTALEIA (ADALIA), ARCH OF HADRIAN (ASIA MINOR).

Among these, the one whose ruins are the most important, by the side of the more spectacular sites of Palmyra and Baalbek, is Djerash, the ancient Gerasa, which grew up under the early Antonine emperors. The city was fairly complete in its ruins until the old materials were recently put to use by a horde of Kurdish emigrants sent there by the Turkish government. A race has been going on between them and a group of strenuous German archæologists, who are excavating, measuring and illustrating the buildings before they are destroyed. Interesting as the ruins in Africa are, certainly

these Syrian cities show a higher artistic type, the inheritance of centuries.

To the traveller approaching Gerasa from the north, along the main ancient highway from Philippopolis, the view of the ruins is heralded by an enormous gateway spanning the road by the side of the circus and naumachia, some four hundred yards outside the city gate. Here the people came to see the races, the sea-fights and other sports. It is a triple archway of enormous size, 82 feet wide, but so battered that its height can only be guessed at. It stands, I believe, on the sacred line dividing the city from the country, the line called *pomerium.* Though its dedicatory inscription has disappeared with the destruction of its attic, the position and isolated majesty of the arch shows that it probably records the city's foundation and its possession of Roman city rights.

Passing northward and following the plan of picking a single example from each main province or group of provinces in the Roman Empire, we reach Asia Minor. Its cities stand quite alone in their pride and glory, with a long history of self-government and local traditions. Here had been the home of the Ionians in the beginning of Greece: and here Greek art and culture had persisted and flourished in the latter days, long after Athens and Sparta had been trailed in the dust. Ephesus, Miletus, Rhodes, Pergamon and many other cities, that were names to conjure with in earlier days, still remained leaders, with a swarm of others, in commerce, arts and letters, gaining a new lease of life under the peace-giving shadow of Rome. In contrast to the cities of Africa and Syria, they never felt the most distant menace of war for centuries, except when rival candidates for the imperial throne, like Septimius Severus and Niger, made of

AOSTA (PIEDMONT), COLONY ARCH OF AUGUSTUS.

SUSA (PIEDMONT), ALLIANCE-ARCH OF AUGUSTUS.

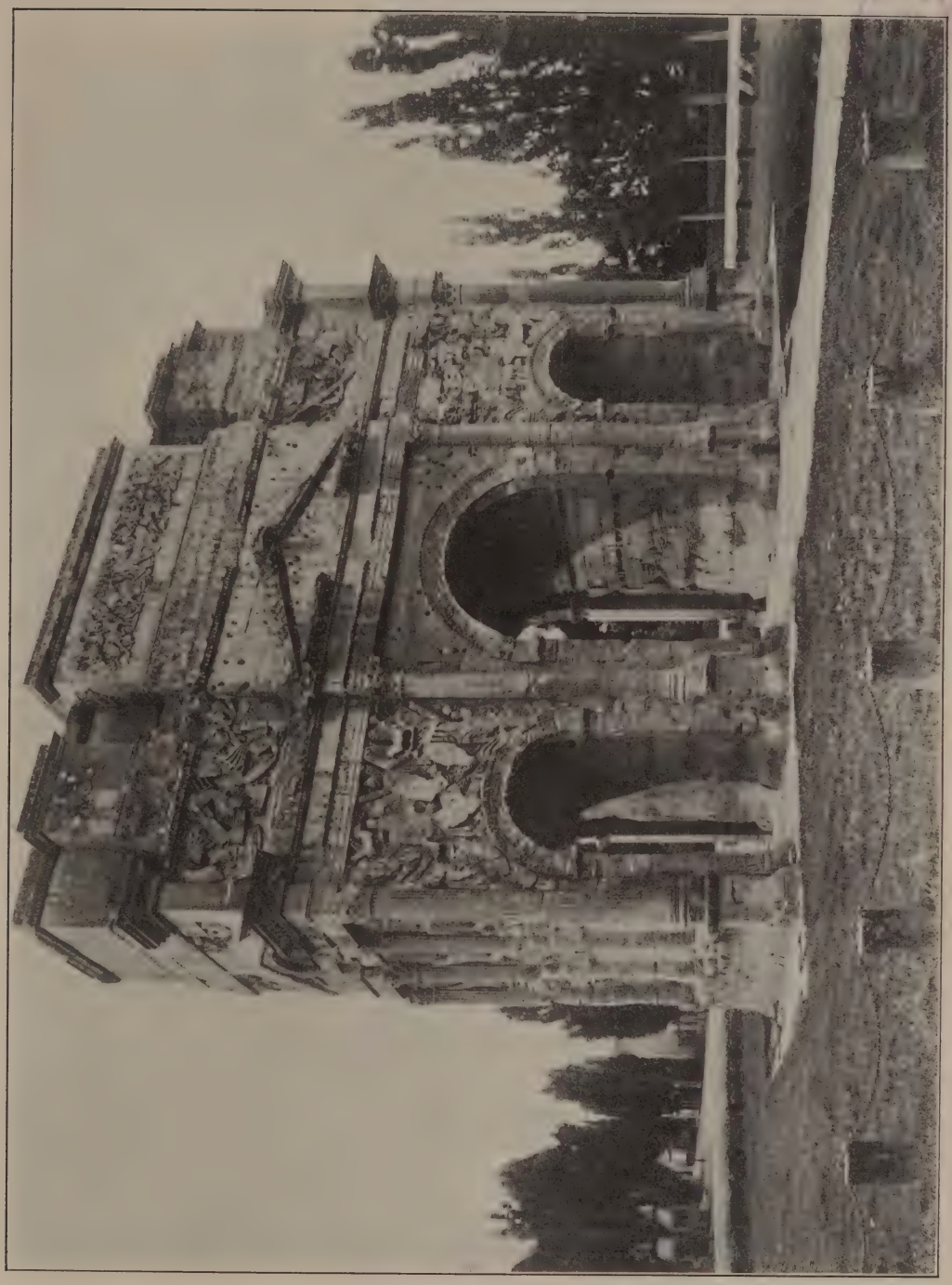
the country for a brief moment one of their battle-grounds. Many of them had enjoyed the privilege of making at first separate treaties of alliance with Rome, when the legions invaded the East, and had been called "friends of the Roman people." With Rome's wonderful adaptability she left these Greek cities all the liberty compatible with the unity of the empire, confident in their loyalty. The prosperity that ensued was phenomenal. All the old cities seem to have been rebuilt on a large scale and the ruins now excavated in Asia Minor have disclosed far more of the Roman than of the Greek period. There may be some wrangling among scholars as to the exact measure of this municipal freedom and as to the respective shares of Rome and Hellas in the shaping of the institutions of this later Golden Age, but its reality stares us obtrusively in the face.

The city arch that we meet with in the ruins of several of these wonderful sites sometimes bears an inscription that distinctly reflects this flavor of comparative independence, and connects them not with a special emperor to whom they owe their privileges—as was the case at Thamugadi—but with their local political organism and their own province. At Patara, for instance, the wording on the arch has this proud simplicity: *"The People of Patara, metropolis of the Lycian people."*

This official proclamation of a city as capital or metropolis of a province by means of the arch-inscription, is also shown by an arch at Nicaea, where the inscription sheds an interesting historic side-light. For centuries Nicaea and Nicomedia were the two most important cities of Bithynia, once a kingdom, now a Roman province, and there was bitter rivalry between the two as to which should have the title of its metropolis. For a long period Nicaea remained strongly intrenched in imperial favor, and when her main arch was built under Antoninus Pius, its inscriptions vaunted her as the metropolis. But at some later time she took the wrong side in a struggle between imperial rivals—the side of the under dog—and the title went to Nicomedia which had, quite naturally, taken the opposite side and so obtained the necessary "pull." The humiliation of Nicaea was officially recognized by the obliteration of the word *metropolis* in the two cases where it occurred on the city arch; doubtless done by imperial order. It must have been a bitter and ever-present reminder to the Nicaeans, this cut in the marble that means so little to us. On the other hand, such gate-arches as those of Hadrian at Isaura and Attaleia, give the other side of the political life of Asia Minor, that was more imperial and less local in its tendencies; arches that were proofs of the personal care and liberality of the emperors.

Passing now westward across the Bosphorous, we leave behind us the spot where Constantinople was soon to bloom as an expended Byzantium, and to have a Colony Arch in the form of its "Golden Gate," which was really the triumphal arch *par excellence,* given to it alone among all cities beside Rome. We can now take a survey of Europe. In Greece, a few cities flourished moderately under Rome, and of these none more than Corinth, whose Colony Arch has been recently excavated by our American School: too little remains of it to give us any proof of its artistic merit. That old traveller Pausanias mentions it as surmounted by the Chariots of Apollo and Phaethon. It recorded the rebuilding of Corinth by Julius Caesar and Augustus; that tardy reparation for the great historic wrong done a century earlier, when the barbarous Mummius had destroyed the great Greek city and carted away its artistic treasures as loot to Rome. The founders of the empire wished to show the world that Rome now repudiated the old policy of brutality and ignorance, and stood for enlightenment and good government. The Arch of Corinth becomes for this reason a significant symbol, and marks an epoch in Roman history.

Passing further westward, there are two other arches, also of the time of Augustus, and built at the very beginning of his empire, on the northernmost frontier of Italy, where the highest Alps sweep down toward the plains of Piedmont. One of these was at Aosta, the



ORANGE (ROMAN ARAUSIO), COLONY ARCH.
(Early Augustan.)

finest remaining example of the Roman purely military city, built on the model of a rectangular camp and surrounded by ramparts. Usually the Roman city was innocent of fortifications, until the barbarian inroads threatened the heart of the empire in its decadence three centuries later. But at Aosta the case was different. When Augustus, following in the wake of his great uncle, Julius, laid out the lines of his great empire, he found at first as substantial troubles near home as on the far frontiers. Communication with the north, especially with the extensive Danubian provinces and the Gallo-German frontier, depended on the security of the Alpine passes leading out of Italy along the whole present line from Venice to Turin. As long as these keys to Italy were in the hands of semi-independent tribes of mountaineers, there was no safety. By diplomacy and by tedious mountain warfare, the long stretch of highlands was finally pacified.

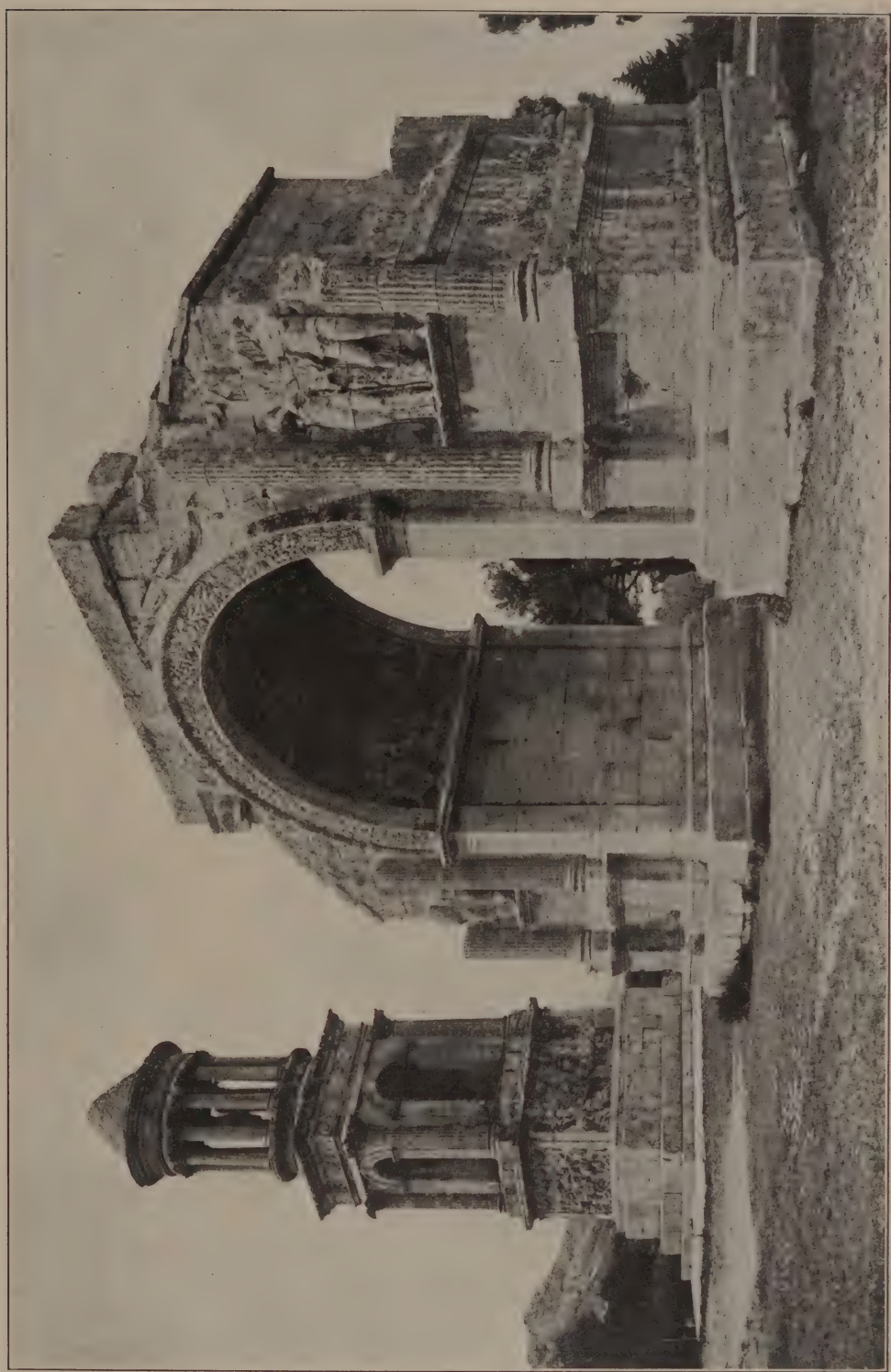
Two arches were built in these mountains to celebrate the submission of the tribes to Rome. One was at Susa, at the mouth of the "Pas de Suse" to commemorate the creation of a prefecture of the Alps with its capital at Susa, in charge of the local king, transformed into an imperial prefect. It is an interesting variation of the civic arch; and its inscription gives the names of all the tribes whose chiefs took the oath of allegiance to Rome.

The second arch was the one just mentioned at Aosta. The tribes in this region were not to be conciliated. The Roman army that forced its way up toward the main pass, pitched its camp and fought a battle of extermination on the very spot where Augustus decided immediately afterwards to build a military colony peopled with veterans, and to call it after himself and the army, *Colonia Augusta Praetoria.* It always fulfilled its purpose of keeping the pass open for Rome and closed to her enemies. Over a thousand feet in front of the military gate of the city, an arch spanned the main approach, a sober, solid structure, congruous with early Roman art. It was both a triumphal and a civic monument, for it recorded the founding of the city and the occupation of this territory by Rome after a great victory. It marked the point where the jurisdiction of the new city began. More than any other arch we have given, it expresses the purely military side of so many of the Roman colonies, set down in the territory of the enemy to mark that here Rome has placed her seal.

The temptation is strong to make an excursion across these Alpine passes, at this point or along the Riviera, into that fascinating region of Southern Gaul, the earliest of Rome's important provinces. For here, the granting of citizenship, especially the so-called Latin rights, first assumed important proportions. Here grew up a little Italy that was to outlive Italy herself as a home of Roman culture in the West. The last eloquent poet of pagan Rome was a Gallic poet of the early fifth century who, as he leaves it for his own land in melancholy prescience of its approaching ruin, looks upon Province as the refuge from the barbarians of the North. And in its sunny cities at Arles, Nimes, Orange, Avignon, Vienne, are many of the finest and most colossal works of Roman art, including those masterly arches of S. Remy and Orange, the most beautiful as well as earliest to be richly sculptured among the Roman arches of the world.

Has not this glimpse of arches in different parts of the empire made it clear that they had a special function and were present everywhere? Exactly what this function was, not in the opinion of a modern critic but in the mind of the Romans themselves, may be inferred, but I must make them speak more clearly for themselves. Otherwise I might be charged with imagining a charming but airy figment, a civic myth.

The evidence, of course, is clearest in the inscriptions of the arches themselves. It is sometimes expressed in plainest prose; sometimes it is poetic. It was a matter of temperament and environment. North Africa was the home of officialdom, of red tape and military directness. Its inscriptions often bore one with their titles and their formulas. From one of its arches I cull, quite naturally, the baldest unchallengeable proof of my theory.



SAINT REMY, COLONY ARCH (EARLY AUGUSTAN).

In 209 A. D. under Septimius Severus, a colony was founded at a place called Vaga, the modern Bedja. From the Emperor it was called *Colonia Septimia Vaga.* An arch was built, stating this fact, and dedicating the colony to Septimius Severus, to his sons Caracalla and Geta, and his wife, Julia Domna. The city was founded, the inscription states, by the pro-consul Flavius Decimus, who *"having founded the colony built the arch" (colonia deducta arcum fecit).* This is simple enough, but oh! the preamble of red tape about Septimius Severus, Pius, Pertinax, Augustus, Arabicus, Adiabenicus, Parthicus, Maximus, Pontifex Maximus, etc., etc., with all his assumed imperial genealogy for six generations! We must wade through it all before we reach the kernel of fact.

The antithesis to such phraseology is shown in the poetic simplicity of the so-called arch of Hadrian at Athens. Hadrian had ventured to build a new Athens beside the old, in connection with his Pan-Hellenic rivival, and at the very line where the old and the new met he set up an arch. As the stranger approached it, the artist supposes the arch to speak to him, telling him what lies before him. If he comes from the side of old Athens, the arch says to him in its inscription: "Behold the ancient city, the Athens of Theseus." If he approaches from the opposite side, it says to him: "Behold the City of Hadrian, not that of Theseus." The arch is, therefore, imagined to be the official *Cicerone,* the mouthpiece of the genius of the city!

Upon and around these arches were sculptures appropriate to such civic memorials. Here also the inscriptions of an African arch give the irrefutable proof. They are at Cillium, the modern Kasrine, and tell how Manlius Felix, with his customary liberality, made the arch of the colony of Cillium together with *the insignia* of the colony. When, a century and a half later, it was necessary to restore the arch after some disaster in the time of Constantine, the author of this reconstruction says that he repaired the *ornaments of liberty and the old insignia of the city* connected with the arch.

What were these symbolic works of sculpture? Often it was the famous group of the Roman Wolf suckling the Twins, placed in the centre over the attic. It showed that the city belonged to Rome. Trajan placed this group on the triumphal gate which he built at Antioch. The same idea was associated with the Roman Sow and her litter. When Hadrian rebuilt Jerusalem as a Roman Colony, this group was set on the city arch. More frequently it was some figure especially emblematic of the city itself; its Genius, its Fortune, the Hero who was its founder, or the god who was its protector. So when a few years ago, Mr. Bent excavated the ruined arch of Thasos, one of the few really Greek arches, he found fallen at its base the crowning group of Hercules wrestling with the Nemaean lion, emblem of the city. So at Corinth, Phoebus Apollo and Phaethon rode in Chariots of the Sun on the Colony arch.

Around the arch it was quite natural that the most important records of civic life and history should cluster. It was surrounded by statues of the great men and women of the city, when local adulation did not prefer to replace these by images of the Emperors and their families, especially those Emperors who were founders and benefactors. At Thasos, these statues and their inscribed pedestals are especially interesting, from the prominence given to the local priestesses. With all our feminine ascendency, we are far less generous to women in the matter of public monuments and official recognition than the Romans of the Empire! Trajan's arch at Ancona, crowned by statues of his wife and sister, as well as his own, is characteristic. We would not even dream of classing Mrs. Cleveland or Mrs. Roosevelt among the immortals!

After encircling the whole Mediterranean from the Pillars of Hercules, we have now gone back to the source, to Rome itself; and to the time when, under Cæsar and Augustus, Rome first set herself to govern the world for the sake of the governed. It was an idea new to the world; for other great attempts at universal empire by Assyria, Persia and

ARCH OF THE SERGII (COLONY ARCH) AT POLA IN ISTRIA.
(Early Augustan.)

Alexander had recognized local rights and privileges little or not at all. The Romans of the Republic, too, had been in the field for the plunder of nations. How did the arch become the material emblem of this new altruism, which was also the most enlightened egoism? Its political meaning harks back to a religious origin. The first of all arches in Rome marked the bounds of the sacred territory within which Jupiter ruled as head of the commonwealth. It was sacred to the god Janus, who from it faces both ways; watches both over the city and over the Roman armies in the field that have passed out hoping to return in triumph through this archway, which has remained open during their absence. At its threshold where the city limits and the rule of Jupiter begin does the general, who has been absolute ruler in the field, lay down, on his return, all authority. Only when, in the midst of boundless enthusiasm, he is decreed a triumph,

does he prepare throughout long days for that glorious time when, preceded by the spoils and the civil authorities, and followed by his laurelled troops, he is allowed to pass through the gateway, to be supreme even within the city for that one day as Jupiter's viceroy, until at the close of his triumph he returns the god's sacred sceptre and mantle, which he has been carrying, into the lap of the god in his temple on the Capitol. Back into the penumbra of Roman dreamland this picture carries us. The god in the Arch gave it a real personality in the days of legendary Rome. This Arch god, Janus, was a witness to treaties, a punisher of perjury, the guardian of outgoing and incoming citizens, the vestibule to all the city gods. Even though the practical Romans of the days of Cicero gave a political twist to many old institutions that were at first strictly religious, Rome was really so conservative that it is not surprising to find that the emblem of this spirit-god of the city should be carried everywhere as the Roman power spanned the world, to represent the image of Rome in its new colonies. The arch followed the legions, yes, but not as the emblem of brute force and conquest. It was given to those privileged places only that were granted some or all of the rights of Roman citizenship. So at first, under Augustus, the colony arch was seen in but few parts of the Roman domains. It grew slowly in numbers with Claudius, expanded briskly under Trajan and the Antonines, riotously after Caracalla, who made citizenship universal. Whether the city was a fortress like Aosta, an unprotected military colony like Timgad, a purely commercial colony like Antinoë, or an old established Greek city like so many in Asia Minor, it meant but the one thing, an organic life, a life of orderly freedom under the aegis of the Roman Commonwealth!

ATHENS, COLONY ARCH OF HADRIAN.

Finally, when under the new aegis of Christianity a new capital was given by Constantine to the Empire at Constantinople, that city was given its Colony Arch, its Field of Mars and the privilege of the Great Triumph in order to make it Rome's equal. This Colony Arch still exists in the famous Golden Gate, to show how much of ancient Rome Christianity still retained.

A. L. Frothingham.

Baron Haussmann and the Topographical Transformation of Paris Under Napoleon III.

V.

THE PARKS AND ARCHITECTURE.

THE PARKS.

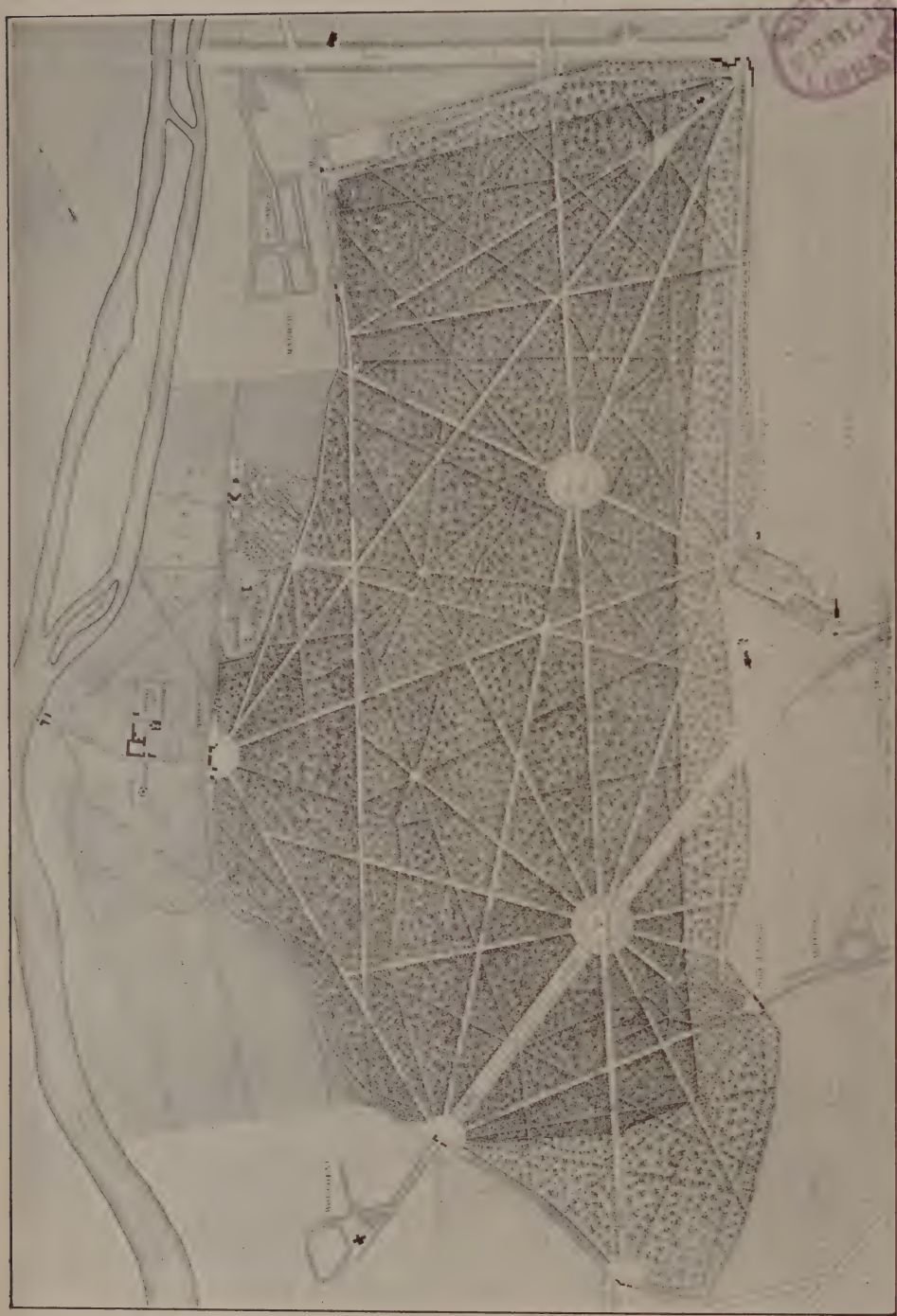
Haussmann claims for Napoleon III the distinction of having created the public civic park. One does not wish to concede so much without extensive investigation; but the assertion of the Grand Préfet is probably near the truth. Royal domain was doubtless always more or less public by tolerance, or through lack of proper protection. About Paris itself there was abundant waste land which the people used freely although it did not belong to them; but there was certainly no organization of this important branch of civic construction before Louis-Napoleon took up the problem. The empire was fundamentally democratic and the second emperor was temperamentally disposed to assume the family traditions. He wished the common people well. He desired to give them more light, more air, more comfort. Haussmann was humanitarian also; but he was more. He understood the genius of the Parisian people. He knew that their craving for beauty, for effect, for display, for magnificence is the source of their wealth and power. Paris is not a commercial city; it is an artistic city. In the creation of public parks, Haussmann endeavored to meet all requirements.

BARON HAUSSMANN IN 1889.

THE BOIS DE BOULOGNE.

The great royal hunting parks which lay near the walls of Paris were convenient for his purpose. The chief of these was the forêt de Rouvray (Roboretum) which originally extended along the eastern bank of the Seine from the bend opposite Sevres to the hamlet of Saint-Ouen near Saint-Denis. The people encroached upon the domain until, in the twelfth century, it included little more than its present area. In 1319 some pilgrims built at the southern end of the tract a church in imitation of one in Boulogne-sur-Mer, and gradually the forest took the name Bois de Boulogne. The limits of the Bois were fixed by an edict of Louis XIV in 1679.

Within and about the park were several smaller enclosures; the abbey of Longchamps (Longus Campus) founded by Isabel de France, a sister of Saint-Louis; the château, with its park, of Madrid, built by François I in 1530; the château and park of La Muette at Passy,



THE BOIS DE BOULOGNE BEFORE THE TRANSFORMATION.

THE BOIS DE BOULOGNE AFTER THE TRANSFORMATION.

transformed by the Regent in the eighteenth century, and the delicious little château and park of Bagatelle near Neuilly built in 1779, and afterwards the property of Sir Richard Wallace.

July 8, 1852, the Bois de Boulogne was ceded to the city of Paris. At this moment it was arranged like other hunting forests; Fontainbleau, Saint-Germain or Marly; with long straight roads running quite through the domain, having at their intersection the conventional "ronds points." As, for a civic park, this arrangement was inconvenient; its entire reconstruction was necessary.

The design of parks on classic lines, following the traditions of antiquity and the practice of the Renaissance and Baroque periods in Italy, had been carried to its complete development by Le Nôtre in the superb series of gardens which culminates in the vast ensemble of Versailles. Versailles is the largest and finest expression of breadth and symmetry in design; and, as such, accorded perfectly with the temperament of the time of Louis XIV. In the period which followed, to the contemporaries of Watteau, Boucher and the court of Louis XV, its extreme dignity became burdensome. They called for less of art and more of nature; more delicacy, more surprise, more charm. For a lighter type they turned to England.

England also had developed the formal garden, but the temperament of her people had never quite accepted it. The love of simple nature is too deeply rooted in their temperament. The reaction came in the early eighteenth century under the leadership of a clever gardener named Lancelot Brown ("Capability Brown," 1715-1783), who abandoned the old symmetry, and showed much skill in adapting the forms of his work to natural conditions. Brown founded an excellent school of designers and established the type of the "English Garden" which found its way into every country in Europe. Many "jardins anglais" were created in France; the most important of course being that of the Petit Trianon.

In the creation of the Parks of Paris, the choice was made definitely between the two types, the large formality of the truly French park of Versailles was set aside, and the realistic charm of the English park at the Petit Trianon was adopted. This was the only choice possible at the time; but it seems rather to be regretted. Time has brought about a better sense of proportion in such matters. We feel now that both types are good in their way, and may be used separately, side by side, or blended in various proportions.

The work of transforming the Bois de Boulogne was begun before the advent of Haussmann and was at first placed in charge of a Dutch "Jardinier paysagiste" named Varé assisted by the architect Hittorff. As they proved inadequate, in November, 1854, Haussmann called an old associate, Jean-Charles-Adolphe Alphand from Bordeaux, to take charge of the work.

Alphand was born in 1817 at Grenoble, and was educated in Paris at the Lycée Charlemange, the Ecole polytechnique and the Ecole des Ponts at Chaussées. In 1843 he was sent to Bordeaux where he rendered most valuable service in the reconstruction of the harbor and quais. He became intimately associated with Haussmann after the latter's appointment as Préfet de la Gironde in 1852. Alphand was placed in charge of the Promenades and Plantations of Paris and controlled the externals of the city until 1892. He had charge of the fortifications of Paris in 1870, and was the genius of the exhibitions of 1867, 1878 and 1889. He was the ablest of all the capable men whom Haussmann attached to himself in the Transformation of Paris.

In 1855 the plain of Longchamp was added to the area of the Bois, carrying it to the river; and the reconstruction of the park was completed in 1858.

The creation of a great park at this moment did not consist exclusively in the arrangement of levels, of lines of roads and masses of forest and water. It was quite as much concerned with the character of the plantations themselves. The flora available in the time of Le Nôtre was simple. The old gardens depended much upon gravel and grass,

fountains and other architectural and sculptural decorations. Alphand found a much larger field of selection and increased the range himself greatly. He exhausted the resources of commerce to discover and bring to Paris every tree and plant in the wide world which could be used for his purpose.

In the Bois de Boulogne Alphand established the type which has been loyally followed in the development of all modern cities. We have numberless imitations in America; some of which, thanks to our abundant virgin resources and the genius of the Olmsted School are really more interesting than their Parisian model. Central Park is a good deal battered and bedraggled now; but twenty-five years ago this beautiful play-ground had a delicacy and refinement which even the Bois de Boulogne lacks.

THE BOIS DE VINCENNES.

The Bois de Vincennes bears the same relation to the Bois de Boulogne as the Place de la Nation bears to the Place de l'Etoile. It is the play-ground of the working people of Paris.

In the Gallo-Roman period civilization extended along the water-courses, and the country between was largely forest. As cultivation increased the forest centers became separated; and, in one way or another, drifted into the control of the crown. The largest of these near Paris was the so-called Lauchonia Sylva to the eastward, which extended as far as Melun near Fontainebleau. After the death of Childéric II in 673 this forest was divided into three, which became the Bois de Bondy, the Bois de Livry and the Bois de Vincennes (Sylva Vilcenna). Philippe-Auguste built the Château de Vincennes in 1183 to contain animals presented to him by Henry II of England. When it became clear that the residence and business of royalty required a large establishment in the neighborhood of Paris, Mazarin determined upon its location at Vincennes, and drew up an elaborate scheme which was, however superseded by the Versailles ensemble. In the reign of Louis-Philippe Vincennes became more especially a military establishment. The Bois de Vincennes was the property of the sovereign or the state until July 24, 1860, when Napoléon III ceded the tract to the city of Paris. He had begun its improvement two years earlier.

The design of the Bois de Vincennes does not differ essentially from that of the Bois de Boulogne. It is a "jardin anglais" thoroughly. In its use it is more of a play-ground and less of a promenade.

THE PARC DE MONCEAUX.

The Parc de Monceaux was created in 1778 by Philippe d'Orléans, the father of Louis-Philippe. It was designed by Carmontelle as an English garden, except in the neighborhood of the château where the arrangement was formal. In 1860 in course of the improvements connected with the Boulevard Malesherbes a part of the old park was transferred to the city of Paris, and laid out in its present form as a "jardin anglais."

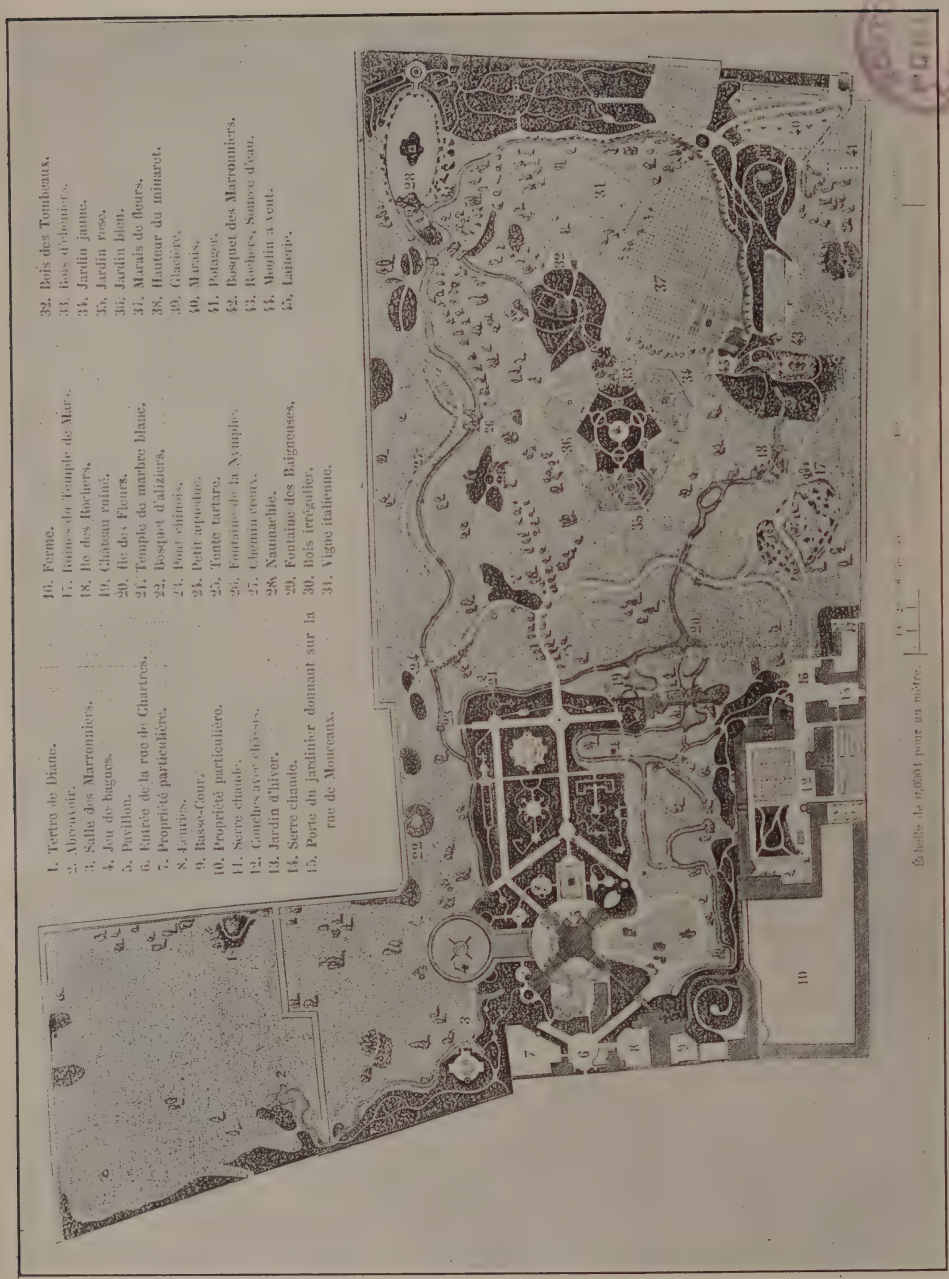
The Parc de Monceaux is a jewel in its kind; but it seems a pity that its designers did not treat it in a more formal manner, with some suggestion of the classic French style. Alphand had his limitations certainly.

BUTTES-CHAUMONT (CALVUS MONS, BALD MOUNTAIN).

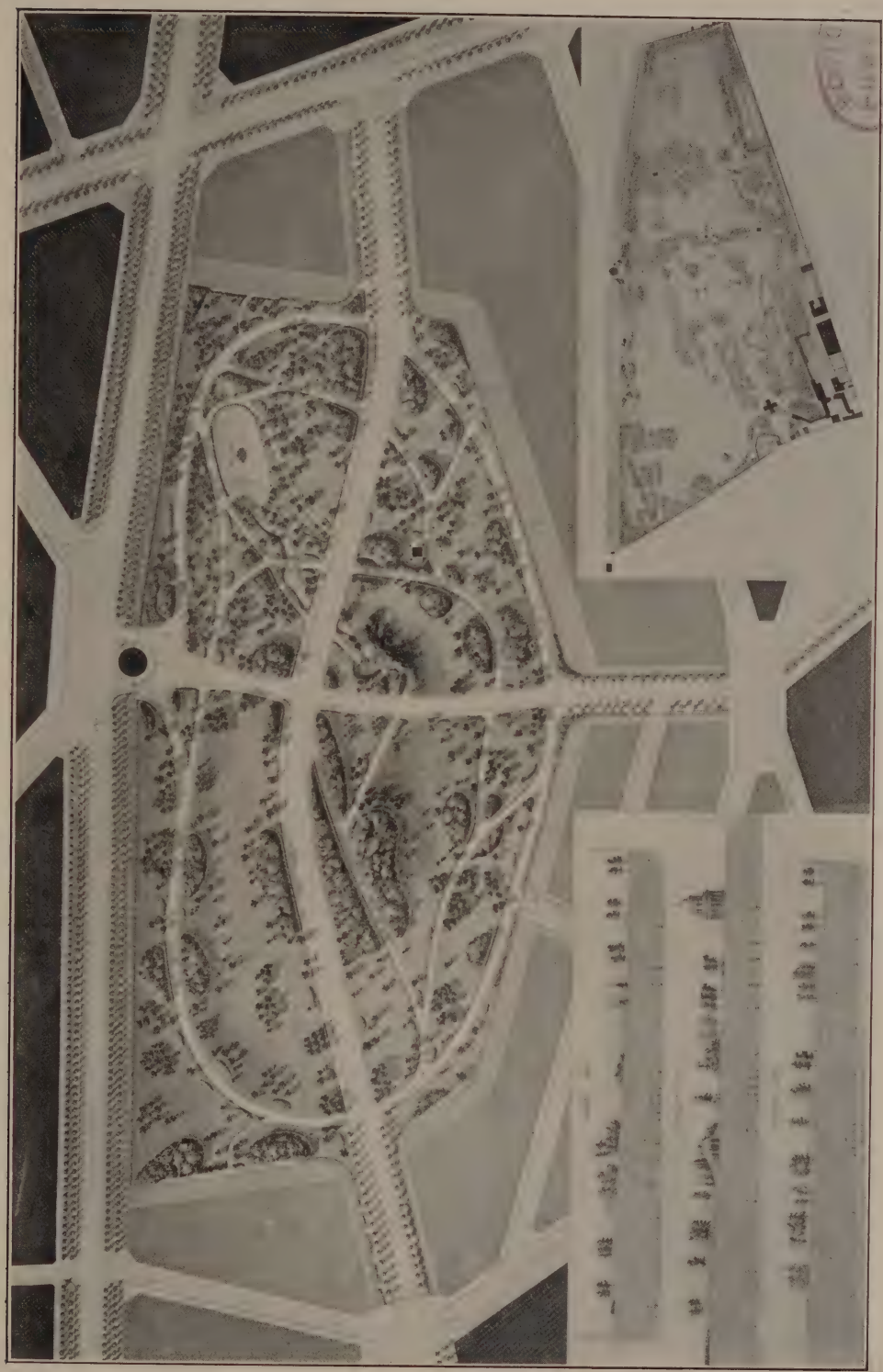
This name was given quite early to a rough gypsum hill which stood a little to the northeast of the second line of boulevards, and which was, in the Middle Ages also called Montfaucon, and carried the public gallows. It was a common dump of the city of Paris for many centuries. On the addition of the Zone Suburbaine in 1860 a part of the region was transformed into a public park. The peculiar character of the Buttes-Chaumont is due to the fact that the rock had been quarried in a most irregular way, leaving lofty projections and deep depressions. The English type was here peculiarly appropriate.

MONTSOURIS.

The little park of Montsouris was built in the extreme southeastern part of the city to balance the Buttes-Chaumont.



PARC DE MONCEAUX, AS DESIGNED BY CARMONTELLE.



PARC DE MONCEAUX, AS REMODELED BY ALPHAND.

THE PLACE DE LA CONCORDE.

In the reign of Louis XV Gabriel gave to the Place de la Concorde a form which should have been final. With its quiet equestrian statue, the eight pavillions with the statues of cities, and their connecting balustrades; and a series of sunken parterres, binding the ensemble together, the old Place de Louis XV was extremely beautiful. Unfortunately the statue was destroyed in the Revolution and in 1836, the fine open center was filled up by the obelisk of Luxor and two monumental fountains designed by the inevitable Hittorff. The pressure of traffic forced Haussmann, to his great regret, to fill up the sunken parterres. The Place de la Concorde is still fine, but by no means as fine as Gabriel intended that it should be.

THE CHAMPS ELYSEES.

August 20, 1828, the park of the Champs Elysées was ceded to the city of Paris. In 1765 the region had been roughly laid out by the Surindendant Marigny. The reconstruction of the Champs Elysées having been determined in 1858, Haussmann completed the rearrangement in 1859 and presented it to the Emperor as a "surprise" on his return from the Italian campaign.

THE LUXEMBOURG ENSEMBLE AND THE AVENUE DE L'OBSERVATOIRE.

The Luxembourg palace dates from the reign of Louis XIII. It is one of those fortunate coincidences which have done so much for the plan of Paris, that the meridian of the city should pass very nearly in line with the main axis of the building and over a low hill to the southward, where Claude Perrault placed the Observatoire in 1667. The opportunity for a great avenue connecting the extensive grounds of the Luxembourg with the Observatoire was clearly perceived by the people of Paris, the administration and Haussmann, who built the present street in 1867. At the same time he remodelled but did not improve the old garden which had been laid out by De Brosse. The construction of the Boulevard de Saint-Michel and Rue de Medicis limited the ensemble on the east.

The Avenue de l'Observatoire shows in a fine way the effect of sculpture in a street. The great fountain placed by Carpeaux in the Avenue de l'Observatoire in 1873 is its point of culmination.

SQUARES AND PLACES.

Haussmann and Alphand created or remodelled all the smaller breathing places of the city, and all on essentially the same scheme. The winding paths, the picturesque bunches of trees, shrubs and flowers, familiar in the Bois de Boulogne and the Avenue de l'Impératrice reappear in each of them. That seemed inevitable at the time. If they were reconstructed now the classic French type would doubtless reappear.

THE VOIRE.

Haussmann did not invent the modern street; that was done in the seventeenth century; but he gave it a final and definite form. We have printed several of the profile sections in our illustrations. Each of the fine new streets was designed in this way, and the type varied in a regular manner from a simple arrangement of roadway and sidewalks like the Rue de Rivoli to the Boulevard de l'Italie with its seven rows of trees and complication of roadways and promenades.

Haussmann's scheme provided for necessities beforehand. There are places for things beneath a Parisian street. The perpetual obstructions of an American city are unknown in Paris.

THE ARCHITECTURE OF THE SECOND EMPIRE.

The architectural history of Paris is so long and so rich; there are so many fine periods of culmination that our attention is held by the earlier periods. We are accustomed to assume that all the good work is old work. We are surprised to find, on looking over a period so late as the Second Empire, how fine, voluminous and important it really is. A list of the architects employed during the period presents many notable names, a list of buildings presents many splendid monuments. Haussmann was deeply interested in all this work and much of

PARC DES BUTTES-CHAUMONT IN PROCESS OF TRANSFORMATION.

it was done under his immediate direction.

The most valuable contribution which he made to the architectural development of the city of Paris was in the organization of the office of the municipal architects.

It had always been the custom to employ good men on the public works of Paris, but when Haussmann appeared in 1853 he found this important matter loosely arranged. The Service of Engineers was in much better order. Architects were simply summoned by the préfet for special service, and dismissed after its completion, receiving an honorarium proportioned to the amount of money spent. He created a corps of public architects recruited from the best graduates of the Ecole des Beaux-Arts, which is such a monumental contrast to the manner in which this branch of the public service is arranged in our American cities that we can do no better than to give his scheme in detail as it is published over his name in the Encyclopédie d'Architecture for July, 1860. With the list of offices we will give the names of the men appointed by Haussmann to fill them:

DIRECTION DU SERVICE.

Architecte-directeur: Baltard.
Inspecteurs et architectes ordinaires: Pellieux et Peron.
Inspecteur dessinateur: Alfred Leroux.

ARCHITECTES EN CHEF.

1e division: Gilbert ainé, membre de l'Institut. Casernes, corps de garde et postes de police, prisons, maisons de répression de Saint-Denis, maisons d'arrêt, fourrière, dépôt de mendicité de Villers-Clotterets, morgue, préfecture de police, halles et marchés, entrepôt des vins, grenier de reserve, douane, abattoirs.
Inspecteur dessinateur: Lacome.
2e division: Louis-Joseph Duc. Lycées et collèges, Sorbonne, Ecole de Droit, Ecole de Medicine, Ecoles et asiles, Palais de Justice, Institut Eugène Napoléon.
Inspecteur dessinateur; Train.
3e division: Bailly. Mairies et justices de paix et postes y attenant, Bourse et Tribunal de Commerce, barrières et bâtiments d'octroi, bureau de péage, cimetières.
Inspecteurs dessinateurs: Hermand et Villain.
4e division: Ballu. Eglises, temples, presbytères.
Inspector dessinateur; Alfred Leroux.

CONTROLEURS.

Controleur en Chef: Edouard Renaud.
Controleurs ordinaires; Garlin, Lerat et Rateau.

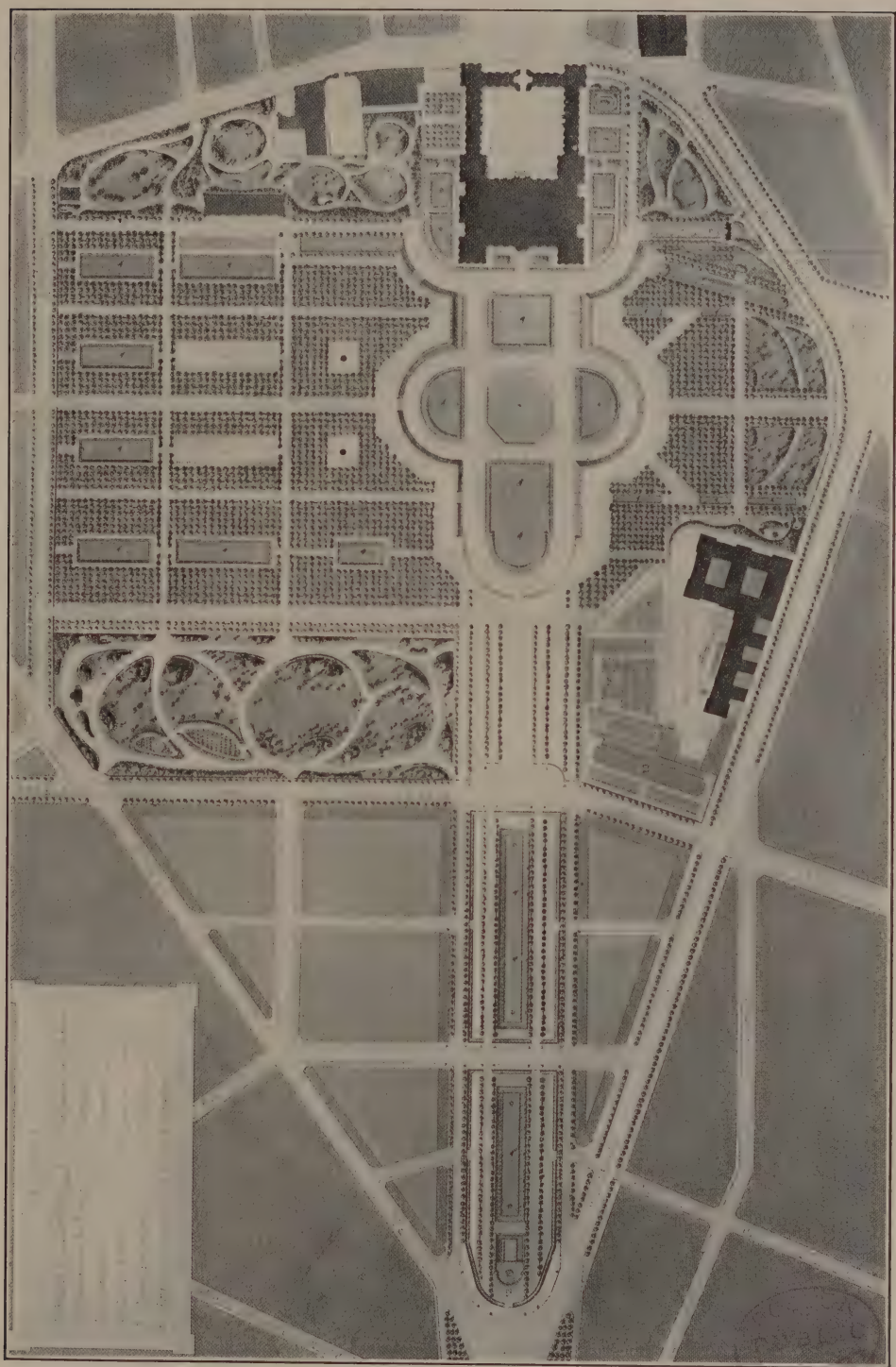
ORGANIZATION DU SERVICE PAR CIRCONSCRIPTION.

1e Circonscription: 1e et 2e arrondissements, dits du Louvre et de la Bourse; Architecte, Huillard; Inspecteurs, Varcolier et Moreau.
2e Circonscription: 3e et 4e arrondissements, dits du Temple et de l'Hôtel de Ville; Architecte, Calliat; Inspecteurs, Lemaître et Gentilhomme.
3e Circonscription; 5e et 6e arrondissements dits, du Panthéon et du Luxembourg; Architecte, Charles Garnier; Inspecteurs, Dejean et Gribout.
4e Circonscription: 7e et 8e arrondissements, dits du Palais Bourbon et de l'Elysée; Architecte, Uchard; Inspecteurs, Salleron et Barbier.
5e Circonscription: 9e et 10e arrondissements, dits de l'Opéra et de l'Enclos Saint-Laurent; Architecte, Gilbert (Jeune): Inspecteurs, Tougard et Devrey.
6e Circonscription: 11e et 12e arrondissements, dits de Popincourt et de Reuilly; Architecte, Gancel; Inspecteurs, Higouet et Flament.
7e Circonscription: 13e et 14e arrondissements, dits des Gobelins et de l'Observatoire; Architecte, Vaudremer; Inspecteurs, Chat et Dubel.
8e Circonscription: 15e et 16e arrondissements, dits de Vaugirard et de Passy; Architecte, Godeboeuf; Inspecteurs, Roger et Bouwens.
9e Circonscription: 17e et 18e arondissements, dits de Batignolles et de Butte-Montmartre; Architecte, Lebouteux; Inspecteurs, Raveau et Mesnager.
10e Circonscription; 19e et 20e arrondissements, dits des Buttes-Chaumont et de Ménilmontant; Architecte, Janvier; Inspecteur, Aldrophe.

Some of the best men of the day and some of the largest personalities in the history of French architecture appear in this list. Others were employed on important monuments not included in the regular "service." Let us consider some of these men and the work which they did under the Second Empire.

Victor Baltard, Architecte-Directeur, was the son of a distinguished engraver and architect, Louis-Pierre Baltard, who held the office of Inspecteur Général of the public works of Paris from 1837 to his death in 1846. Baltard fils won the Grand Prix in 1833. In 1849 he was placed in charge of the more important religious and educational buildings of the city. From 1850 to 1854 he was associated with Viollet-le-Duc and Lassus in the preservation of diocesan buildings, and in 1852 built the Halles Centrales with the assistance of Callet fils. His first design, which was heavy and academic, did not satisfy the Emperor and Haussmann, who insisted upon following the type established in the railway stations. This discussion resulted in the present effective and convenient structure. After 1854 he had entire charge of the Hôtel de Ville. He built the church of Saint-Augustin (1860-1871), and published several important works on architecture. It is to the credit of Haussmann that he recognized the great ability of Baltard and supported him loyally in his high position, although their temperaments were antagonistic and their personal relations always slightly strained.

Perhaps the largest figure among the



THE LUXEMBOURG ENSEMBLE, AS REMODELED BY ALPHAND.

architects of the Second Empire was Louis-Joseph Duc, architecte en chef of the Second Division of the Service d'Architecture; a pupil of Percier and second Grand Prix winner in 1825. In 1834 he succeeded Alavoine as architect of the Colonne de Juillet, and in 1840 was placed in charge of the vast reconstruction undertaken at the Palais de Justice, which included the conservation of the historical portions of the palace, and the new additions; the façade on the Cour du Mai, the Cour de Cassation and the great façade in the Rue de Harlay, finished in 1868. As a recognition of his fine achievement, Duc received the special Grand Prix de l'Architecture which was given by the Emperor in 1869. In 1866 he replaced Gisors at the Institut.

Charles Garnier, Grand Prix, 1848, figures as architect of the 3e circonscription in the Service d'Architecture. He was obliged to leave this office to take charge of the construction of the Opéra, which he won by competition in 1861. Garnier's Opéra is the best known and most characteristic of the monuments of the Second Empire.

Théodore Ballu, architect en chef of the 4e Division in the Service d'Architecture, won the Grand Prix in 1840. In 1893 he succeeded Gau as architect of the church of Sainte-Clotilde, which he finished in 1857. He restored the Tour de Saint-Jacques (1854) and built the new tower of Saint-Germain l'Auxerrois (1858-1863). In association with Deperthes, Ballu rebuilt the Hôtel de Ville after its destruction by the Commune.

Antoine-Nicolas-Louis Bailly, architecte en chef of the 3e Division in the Service d'Architecture, was a pupil of Duban. Haussmann and the Emperor were much pleased by his design for the Tribunal de Commerce, which supplied a fine point of interest to the vista of the Boulevard de Sébastopol.

It is not necessary to carry these notices further. Anyone familiar with the history of modern Parisian architecture will recognize the importance of certain personalities if we mention their names: Davioud, Renaud, Hittorff, Ginain, Godeboeuf, the two Gilberts, Calliat.

CONCLUSION.

In our study of the Great Transformation we have held closely to the plastic side of the work; the dressing of the plan and the decoration of the city. For the best of this, for the larger lines of conception, Haussmann is responsible. This side of his life interested him greatly, but it did not entirely absorb his attention. All the requirements of his great city called for faithful consideration and received it.

In nearly all matters relating to the proper organization of civic affairs, Haussmann was not only a pioneer, but the most eminent master. Compared with his accomplishment that of any other one person is insignificant. His system of sewers is as fine in their way as the streets above them. He for the first time brought pure water to Paris from distant sources. He completely remodelled the cemeteries, adding vast tracts to the land available for this service. Gas was introduced before the time of Haussmann, but the adaptation to the improved city was entirely his work.

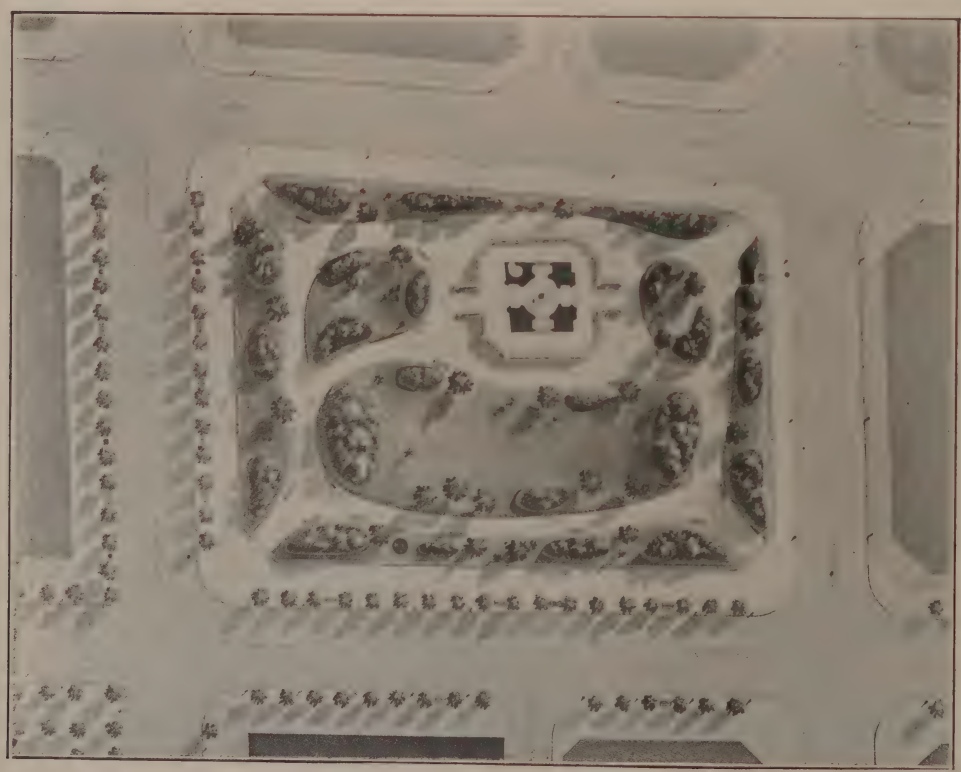
Perhaps the one phase of his task which touched Haussmann most deeply was the financial, and it is precisely here that he is most criticized. He used freely the city's credit, thus forcing future generations to bear the burden as well as to enjoy the benefit. He rested with the utmost confidence upon his principle of Dépenses Productives, which means simply that the money spent made a better city, and the better city was a greater producer of wealth; which is perfectly true. The new Paris has more than fulfilled Haussmann's expectations.

When the opposition to the empire forced Haussmann's resignation in 1869, just before the war, his work was practically complete. What remained to be done was easily accomplished by lesser men.

The Transformation of Paris followed immediately after the construction of the great French railways. For twenty years violent disturbance of values was the rule and not the exception. The speculative opportunities for those in the lead were incalculable. Many took advan-

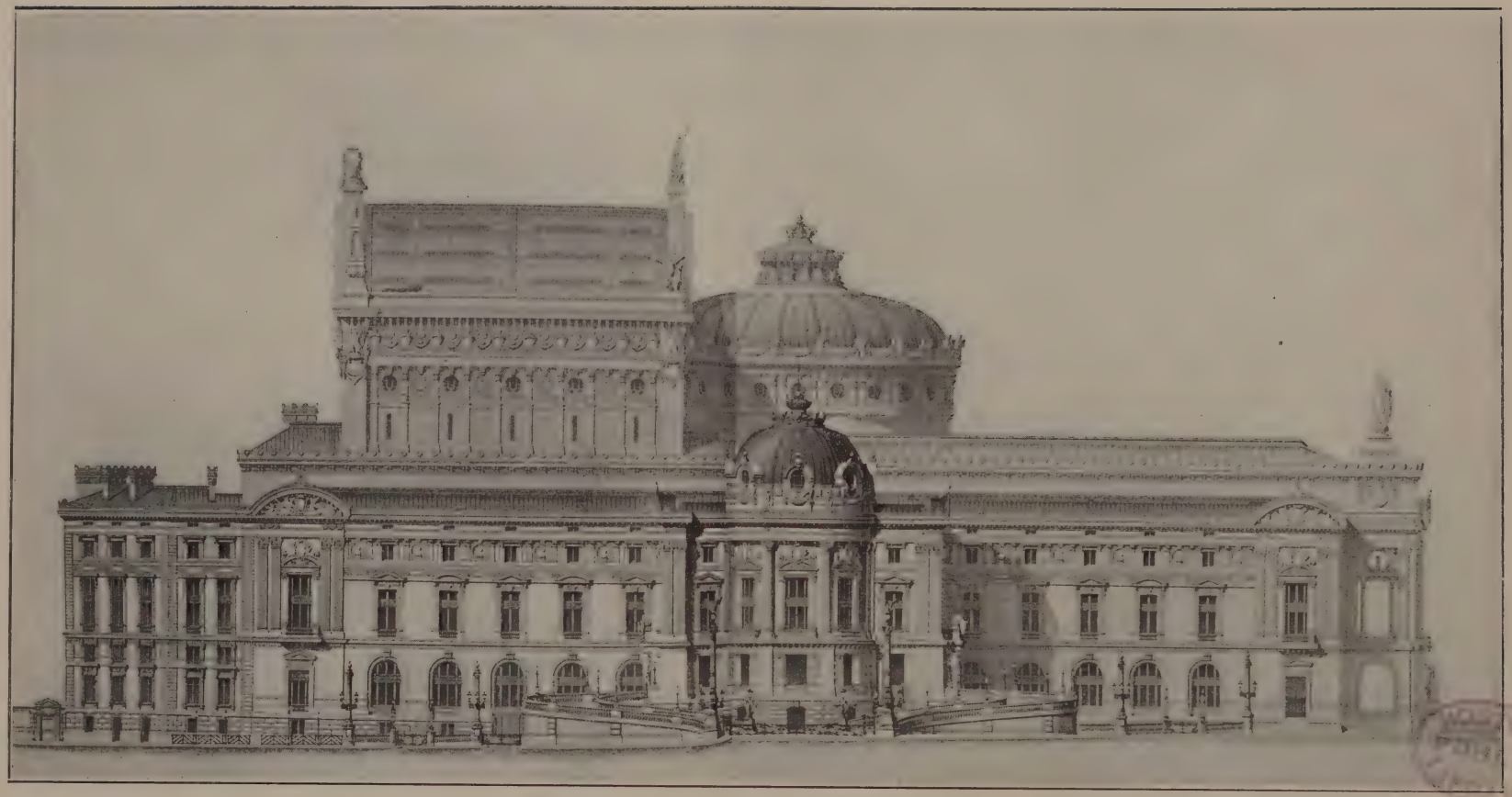
Paris, France. AVENUE DE L'OBSERVATOIRE AND CARPEUX'S FOUNTAIN.

Paris, France. SQUARE LOUIS XVI.

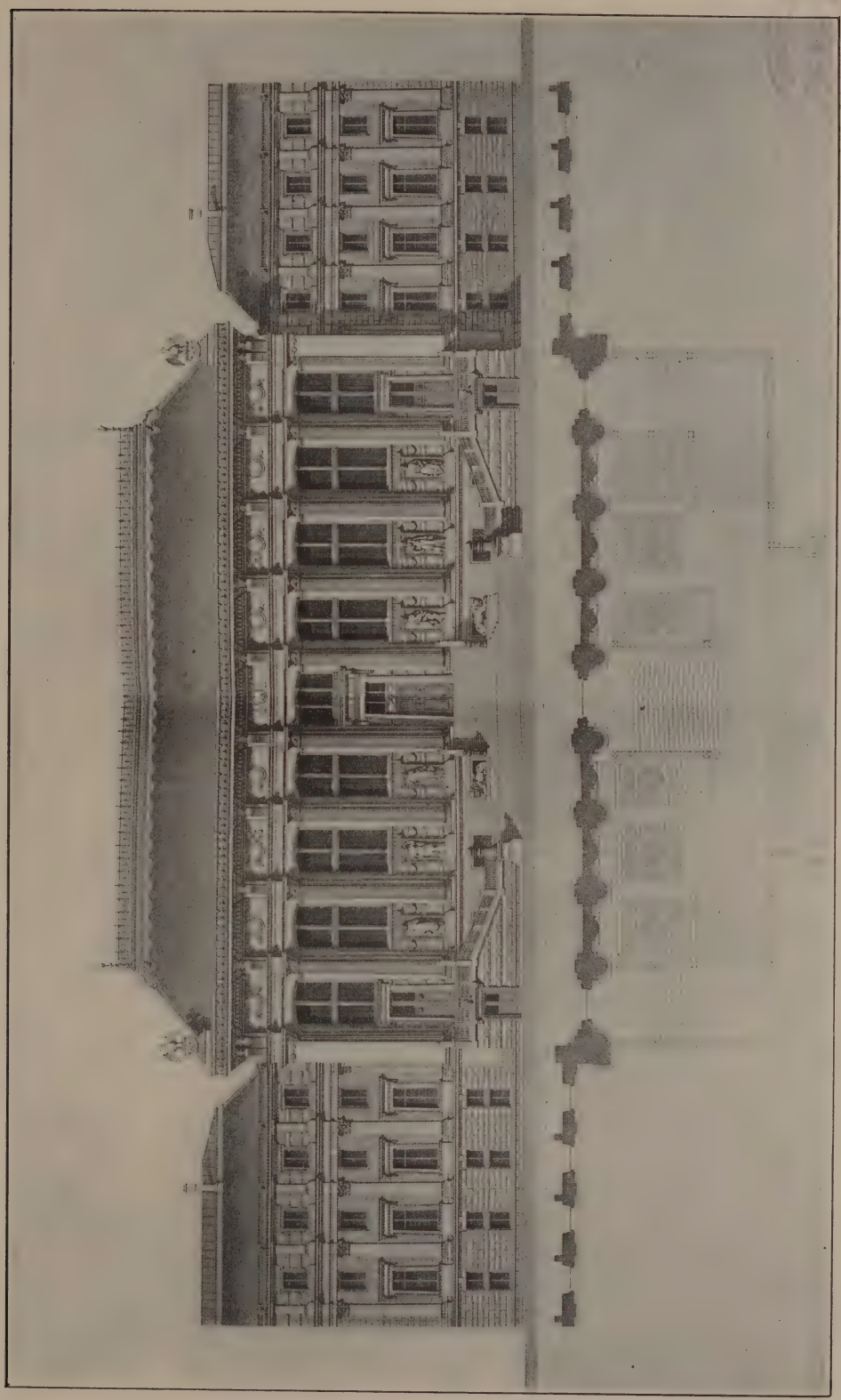


Paris, France. SQUARE SAINT JACQUES.

Paris, France. SAINTE CLOTILDE.



Paris, France. GARNIER'S OPERA—SIDE ELEVATION.



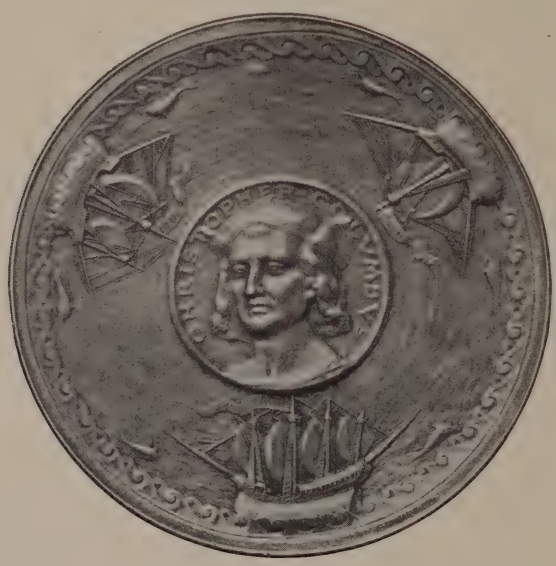
DUC'S PALAIS DE JUSTICE—FAÇADE IN THE RUE DE HARLAY.

Paris, France.

tage of this. Women about the court, clever Americans and other foreigners assisted in the making and losing of fortunes. Zola's "la Currée" is a true picture undoubtedly; but Haussmann's heart was the pure heart of a man of genius, and his hands were clean. He was ambitious certainly. He endeavored to secure high recognition for his office; he was courteously merciless in forcing duller men, from the Emperor down, to take the pace of his relentless imagination; but through it all he was the single minded French bourgeois whose wants were few and whose favorite mode of life was quiet and simple.

Haussmann did not take sufficient interest in the accumulation of wealth to provide sufficiently for his old age. He left the Hôtel de Ville in 1869 depending upon his wife's estate in the Gironde and his pensions as senator and prefect. His pensions disappeared with the empire, and his estates proved unproductive; so that it was necessary for him "soutenir journellement la lutte pour la vie; bien rude à quatrevingt ans passés." "Je conserve," he says, "du fruit de tant d'efforts, que l'honneur d'avoir bien servi mon pays dans une poste aussi dificile qu' élevée." "Que la mort me frappe debout, ainsi que tant d'hommes de la forte génération à laquelle j'appartiens, c'est ma seule ambition désormais. Je sortirai, dans tous les cas, de ce monde, sinon la tête haute, comme jadis, de ma vie publique; du moins le coeur ferme, et quant aux choses du ciel, plein d'espérance de la miséricordieuse justice du Très Haut."

Edward R. Smith,
Reference Librarian, Avery Architectural Library, Columbia University.



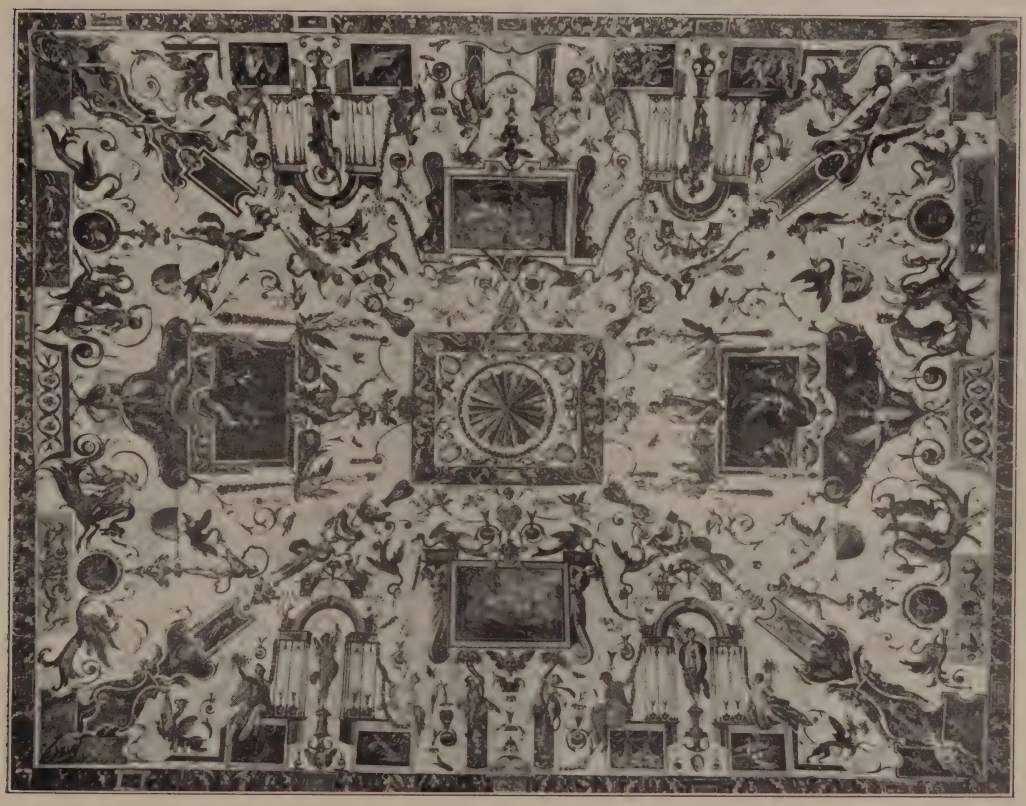
COLUMBUS MEDAL.

C. F. Naegele, Artist.

The Ceilings in the Galleria Degli Uffizi, Florence

The attention of visitors who are not artists to the Galleria degli Uffizi, in Florence, is generally spent on the pictures and the other objects exhibited in the galleries. Seldom does the average visitor take any particular notice of the interior decoration of the various exhibition rooms. At the Uffizi, the entrance galleries or corridors (in which there is such a profusion of light) attract the artist not only by their contents, but also because of themselves. One might contend that their conspicuous beauty is a drawback to the proper exhibition of the works of art to be seen within, and that no one to-day would think of decorating the interior of an art gallery as it is done there.

Yet these galleries are much admired, and are justly celebrated, but not for their suitability for exhibition purposes. In fact, one might say, if any part of the building is particularly ill-suited for exhibition purposes, it is the corridor which occupies the perimeter of the well-known gallery. But it must be mentioned that this building was not originally intended for an art gallery, having been designed by Vasari in 1560 for Cosimo I. de Medici, to serve as administrative, judicial and archival offices for the government of the Grand Duchy of Tuscany.

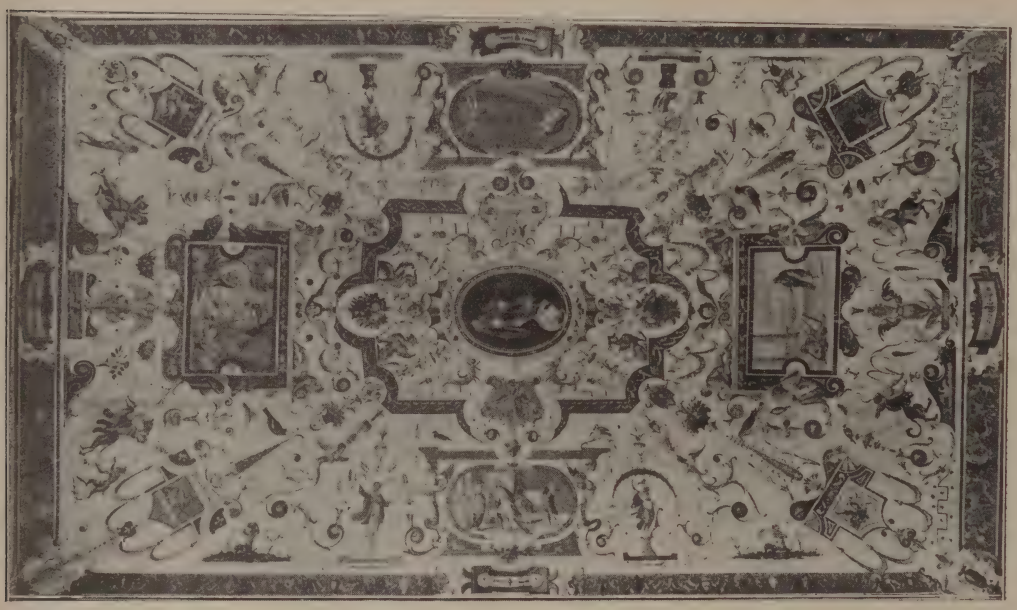


DECORATIVE CEILING OF THE UFFIZI GALLERIES.
Florence, Italy.

Bearing in mind this fact in judging the Uffizi as exhibition galleries for painting and sculpture, we must admit that they form a fairly convenient background for the purpose.

I have remarked that these galleries are in themselves remarkable pieces of interior decoration, consisting of a species of ornamental paintings which are known as "grottesche,"[1] from the brushes of prominent Italian painters. The "grottesche" is a form of decoration which the Italians are much to blame in slighting, especially these admirable examples in the Uffizi.

We artists therefore, who form only a relatively small part of the visitors to these galleries, shall direct our admiration to these paintings on their ceilings, remarking at the same time that the "grottesche" do not compare unfavorably with the best Italian work of that kind, from Rome to Venice, and from Genoa to Caprarola, by the great artists of the "Cinquecento." Which one of us does not recall the names of Giovanni da Udine, Pierin del Vaga, Bernardino Poccetti (called "delle Grottesche"), Giulio Romano, and Taddeo Zuccaro? These illustrious names in the art world of that period form but a very small part of the glorious legion who so largely contributed to embellish Italian buildings with their works of painting and sculpture. There is besides a large number of other artists whose work is important enough to stir in us a certain amount of interest and curiosity. If we doubt the existence of this large class of important artists, the ceilings of these same Uffizi galleries will convince us of their existence. In fact, the corridors of the Uffizi Galleries interest artists almost as much as the famous "Loggie Vaticane." An English artist with whom I recently visited the Uffizi expressed himself as being particularly struck with the vivacity of the brushes that created such an accumulation of beauty, and fresh, merry and fanciful motives in the realm of decorative art. I was asked to account for the name "grottesche" being given to those paintings which employ such a variety of queer decorative forms: temples, cartoons, flower motives, figures and so on. The question was a very reasonable one, and might very properly have been asked by any artist, especially



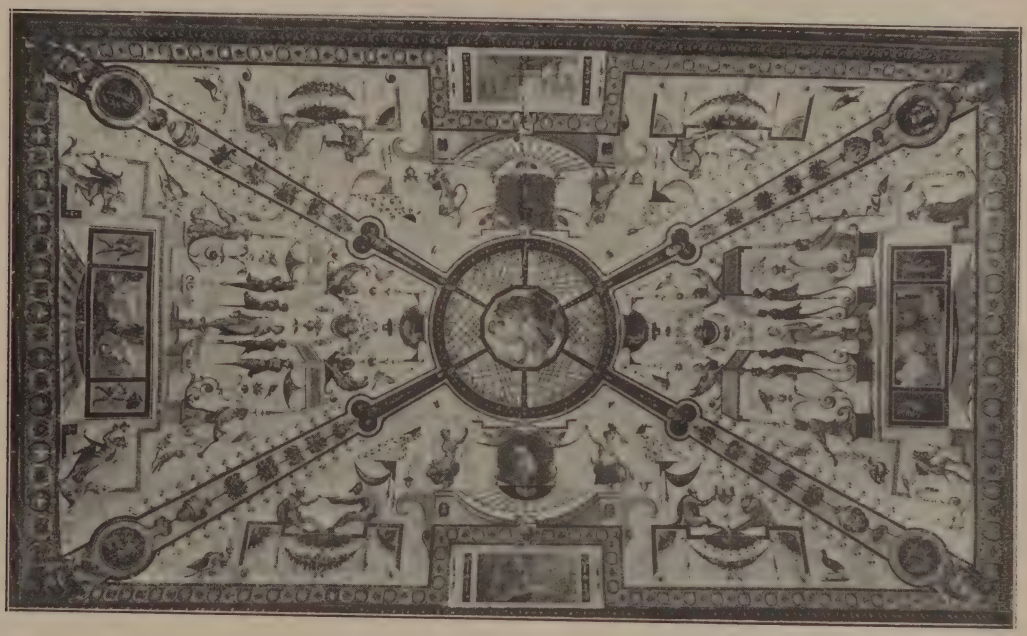
DECORATIVE CEILING OF THE UFFIZI GALLERIES.
Florence, Italy.

[1]Grottesche are whimsical figures or scenes such as are found in the old crypts or grottos of Italy.

not an Italian. I shall undertake to reply briefly herein.

Let us first consult Vasari, the well-known biographer of Italian artists, and at once writer, architect and painter, who also planned the "Galleria degli Uffizi," in which are found these remarkable "grottesche." He says: "The 'grottesche' are a kind of licentious and ridiculous paintings, much used by artists in the ornamentation of recesses, and are composed of infinite drolleries and incongruities; he who succeeded in being the queerest in imagining them was considered the cleverest." Thus does Vasari explain and severely judge them. He mentions them in the life of Morto da Feltre[2] (1474—1522+), and of Andrea di Cosimo Feltrini.

"Morto da Feltre," Vasari says, "reproduced the 'grottesche' more like the ancient way of painting them than did any other artist of his time," and Feltrini, with Giovanni da Udine, did much to give them their easy and flowing form. Vasari makes special mention of the different forms in the decorative painting of the "grottesche," of which he says in the Life of Giovanni da Udine: "The ornamentations of slender stucco forms are alternated with variously colored spaces, representing beautiful and mysterious tales," thus contradicting what he says above. In his "Vite," he observes indifferently that Raphael and Giovanni da Udine were enthusiasts of the "grottesche."



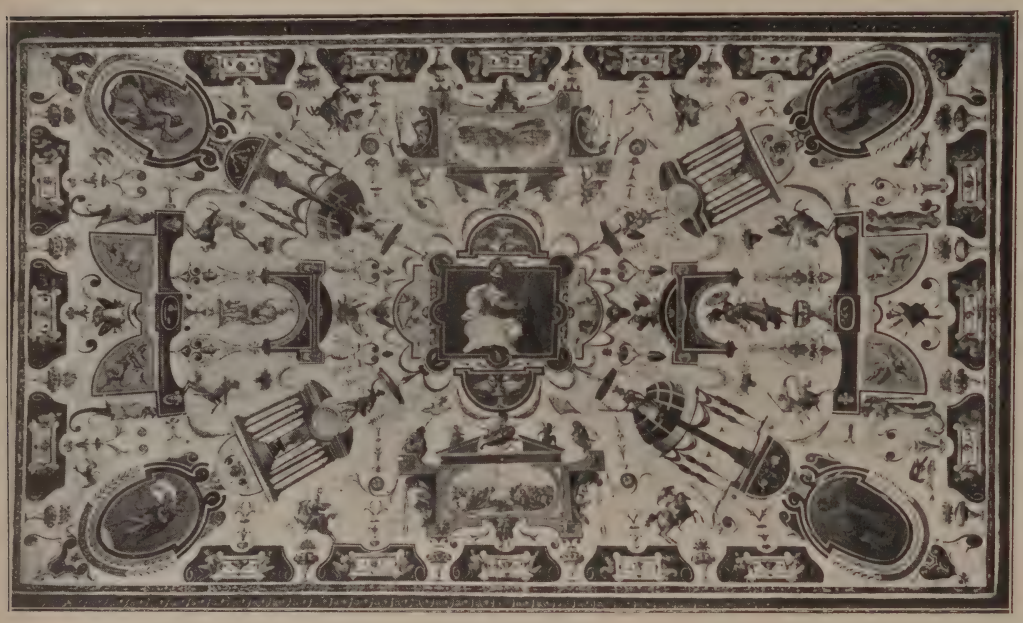
DECORATIVE CEILING OF THE UFFIZI GALLERIES.
Florence, Italy.

We may therefore be permitted to conclude, according to Vasari, that the "grottesche" were seen by some painters of the 16th century, and by certain disciples of Raphael, in the interiors of Roman grottos. From these grottos they were repainted, imitated, in various parts of the Eternal City, and, being imitated from models that originated in the grottos, they were called "grottesche."

[2]As to the existence of Morto da Feltre, or Pietro Luzza, called Zaroto, there is some uncertainty. There is mentioned in some document a painter, Lorenzo Luzzo da Feltre, called Zaroto or Zarotto, who may be Morto da Feltre. Concerning this Morto ("morto" means in Italian, "dead"—he was so called on account of the paleness of his face), a love story is narrated. In spite of his nickname and his paleness, Morto da Feltre seems to have won the love of the sweetheart of one Giorgione or Zorzi da Castelfranco, who died of a broken heart as a result. Other documents say that Giorgione died in Venice in 1510, after an attack of the plague. This account does not, however preclude the possibility of Morto da Feltre's existence.

Let me explain this question of the grottos more accurately. The grottos of which Vasari speaks are the "Terme di Tito" (Baths of Titus), namely, the underground and accessible portion which corresponds to about the center of the southern side of what formed the pre-existing "Domus Aurea" of Nero. It might be inferred that the pupils of Raphael had the entrances to the grottos walled up, to prevent its being known that they copied from ancient models in painting such a work as the "Loggie di Raffaello." But this it is ridiculous to assume, as the "grottesche" belong to the tree of Hellenistic painting; they are a plagiarism, sometimes an amplification and variation of the Hellenistic theme.[3]

Schmarsow ridicules Vasari's version of the "grottesche" by demonstrating that Bernardino Pintoriccio (1454-1513), a disciple of Raphael, was the first to use it in his work in 1492 in the apartments of the Borgias at the Vatican. Schmarsow thus lessens the reputation of Morto da Feltre, or whoever he was, but does not solve the mystery in which is wrapped the Hellenistic painting which gave rise to the "grottesche" of the Cinquecento. Here is a mystery indeed! There must have existed in Rome numerous examples of such paintings at the time when Brunellesco and Donatello explored the city in quest of art treasures; and the copying them was one of the triumphs of classical architecture. The same may be said about the origin of the "grottesche," which, after being at first copied literally, kept pace with the colors and stuccos of the time. Accordingly, we find some Italian painters who were also plasterers, such as Giovanni da Udine (1487-1564) in Rome, and, according to Vasari, Pierin del Vaga (1499-1547), aided by Silvio Cosimi (about 1495-1540), who worked as a plasterer at Genoa or at Fassolo, a town which deserves more attention from artists visiting Italy. Giovanni da Udine worked also as a plasterer at the



DECORATIVE CEILING OF THE UFFIZI GALLERIES.
Florence, Italy.

[3]One should be particular to distinguish between Hellenic or Greek and Hellenistic. The Greek style is that of Phidas, of Ictinus and of Callicratus, while the Hellenistic period is the style of the Alexandrian epoch, and is also sometimes called "Alessandrino."

Laurenziana Library in Florence, but, unfortunately, this work is no longer in existence, nor are the stuccos by the same master in the palace of Giovanbattista dall'Aquila in Rome, at the end of the Borgo Nuovo, near the Piazza S. Pietro.

The "grottesche" are also sometimes called "raffaellesche," or paintings after the school of Raphael Sanzio. This presumption that Raphael created a similar style of decoration to the "grottesche" is not so, and should be corrected. If Raphael really painted in this style he did so like many other painters of his time, drawing his inspiration from the ancient Latin source. It has been supposed that Raphael was the author of the famous Loggie del Vaticano, a piece of unrivalled decoration, in which the gospel of the "grottesche" is, so to speak, disclosed. But it has now been established beyond a doubt that Raphael never touched brush to this masterpiece, which was entirely the work of his pupils, foremost among whom stand Giulio Romano, Giovanni da Udine and Pierin del Vaga. This confusion of authorship it was which caused the name "raffaellesche." It assumed that Raphael had created the style of decoration of which we are speaking, and which Vasari, as we said above, judged with severity, as well as illogically, as other Italian artists before him had done. Vitruvius, the celebrated essayist and contemporary of Augustus, found no propriety in applying to an architecture of stone the small temples which form the base of the decoration that the 16th century called a "grottesche," and which Rome the ancient knew in the epoch of the Empire. This want of correspondence between the architecture and the decoration irritated Vitruvius, who likewise had little use for the profuse and licentious figures which never had existence in Nature as they were depicted in the "grottesche." The decoration had a wide application, notwithstanding the harsh criticism of Vitruvius, and the strictures of Vasari and

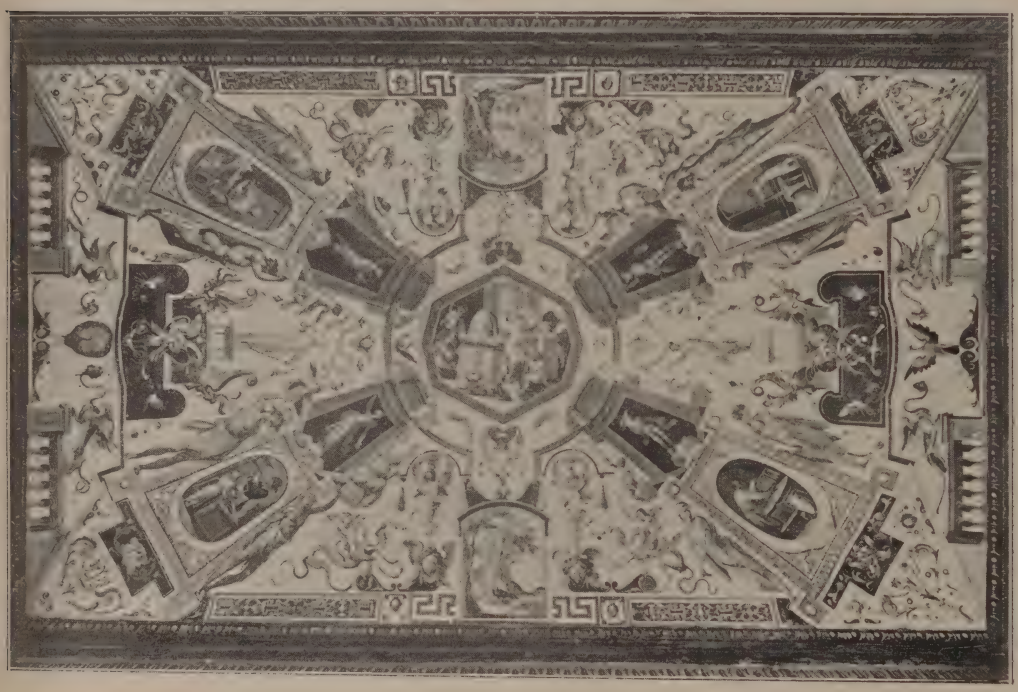
DECORATIVE CEILING OF THE UFFIZI GALLERIES.
Florence, Italy.

Vitruvius, eminent men though they were, do not merit the approbation of modern students.

Every art has its own peculiar mode of expression, and the "grottesche" employs small temples with supports as slender as the stem of a flower, little satyrs and sphinxes that do not offend the æsthetic sense, because they are motives of expression in another form and in another material, in distinction to the forms of stone architecture. Moreover, the figures that are represented are not supposed to be copied from nature. Decorative art must be based on freeness of imagination; it must put together such combinations of light and shade and color as will be pleasing to the eye, and, accomplishing this result, decorative art mav be called successful.

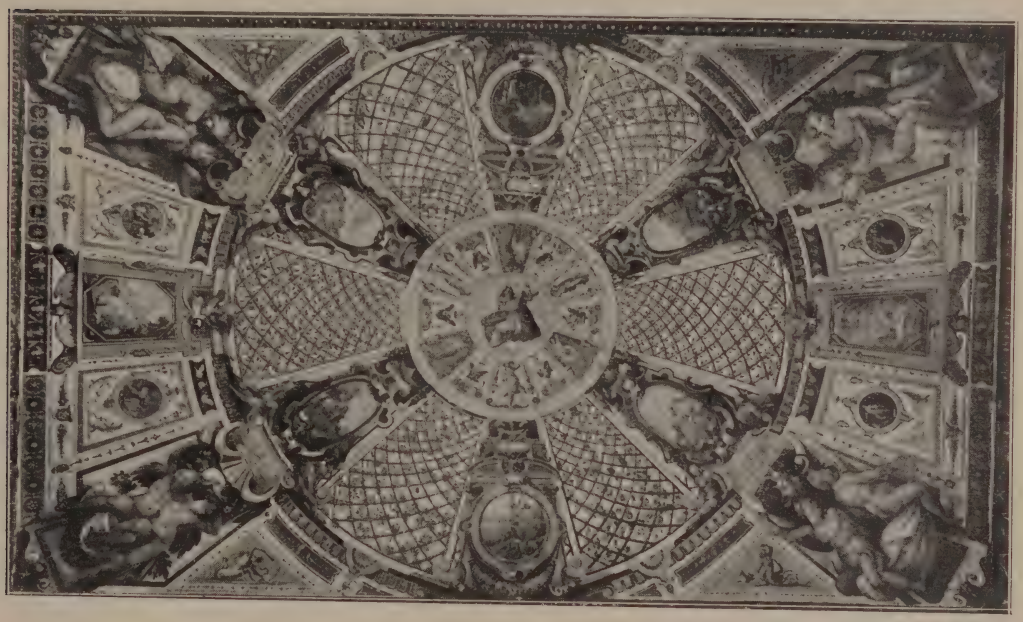
Going back now to the ceilings of the Uffizi, we can surely say that the masters who painted them achieved a decided success; it must, however, be explained that the photographs reproduced herewith give but a very faint idea of the polychromatic effect of the figurative and ornamental images depicted. These images are attributed to the well-known painter Bernardino Barbatelli, called Pocetti, who was the principal master of the "grottesche" in Florence. Plausible as this theory may sound, these decorations are, in fact, the composite work of various painters of different epochs, e. g., Mario Butteri (who did his best work around 1567), Alessandro Pieroni (who was prominent about 1588), Lodovico Buti (who reached the height of his career in 1590), Francesco Bizzelli (1556-1612), and probably Alessandro Allori, called Bronzino. All these men are known to have worked on the figure portions of the medallions and cartoons. The oldest portion of the ceilings dates from 1581, which date can be read in the first corridor.

There are three corridors all told, two very long ones running parallel and joined by a shorter one. The long corridors are of more recent date, belonging



DECORATIVE CEILING OF THE UFFIZI GALLERIES.
Florence, Italy.

to the period of Ferdinand II. (1578-1637), and were finished about 1658 by Luigi Ulivelli and others. About a century later (1762) a fire broke out in the Uffizi, destroying a considerable part of its painted ceilings, together with some busts, portraits, ancient statues, and a sketch by Michelangelo. This unlucky event necessitated restoration and rebuilding, which included the repainting of some of the ceilings. The subjects, be it remarked, are not entirely drawn from the imagination, for we find among them many historical and allegorical scenes and figures that awake interesting memories of Florentine events. We meet figures and events in the lives of the de Medici family, who ruled Florence at that time. The careful examination and study of the "grottesche" in the Uffizi is most instructive to the artist who must rejoice at the fecundity with which those brushes were used and their marvelous agility. He may gain from them an almost inexhaustible supply of ideas and historical knowledge. There is noticeable here and there a certain lack of unity in the ornamental subjects which is most apparent in the black and white compositions, in which the lack of color emphasizes the lack of unity. One might criticize, and justly, the frivolity of some of the decorative subjects; the fancy is sometimes carried to an extreme of exaggeration, where moderation would have been more appropriate. Should the reader be of this mind, he should, however, remember that the energetic coloring and the meditated harmony of the color masses emphasize the exuberance of the lines. Decorative painting relies in a special manner upon the color composition, which impresses through its large masses and often serves to correct faulty drawing. The outlines of the masses are then merely expedients tending to give a more solid base to the composition as a whole.



DECORATIVE CEILING OF THE UFFIZI GALLERIES.
Florence, Italy.

The ceiling decorations of the Uffizi cannot be pointed out as models of sobriety, for the epoch during which they were executed was one of riotous fancy and license. After the middle of the 16th century Italian art tends to the Barocco, and the ceilings before us are also interesting, because they show how the "grottesche" were painted in Flor-

ence when the Barocco style was beginning to make itself felt. It proceeded imperturbably on the road of the most fiery fancy ever experienced in Italian art, and numbered among its most robust exponents such artists as Lorenzo Bernini (1598-1680) and the graceful Roccocco. Therefore, the brushes that painted the ceilings of the Uffizi, at the same time express their respect for the Barocco and the Roccocco styles, so much sneered at and unjustly blamed in Italy and abroad when it came forth with its impetuosity of passion and its inexhaustible vein of fancy.

Alfredo Melani.

DETAIL OF CEILING DECORATION IN THE UFFIZI GALLERIES.
Florence, Italy.

The Evil Effects of Competitive Bidding on Building Contracts*

I do not know of anything more important in connection with the erection of a building than the contract. Our interests all center in this document and by its terms we assume obligations which bind us all together for the accomplishment of a common purpose. There is perhaps no one who has a better opportunity than an architect to observe how well a contract accomplishes the purpose for which it was made. I, therefore, propose to discuss briefly the modern building contract and the effect which competitive bidding has upon it. We have seen in our time the greatest advancement in building construction, in some respects that the world has ever known. With the advent of the new building material, structural steel, and its accessories, the invention of the elevator, and the various things that have made this great progress possible, the problem of erecting a building has become one of great magnitude and responsibility. Yet, with all this advancement in construction, little or no improvement in the contract has come, or of the method of letting the contract, notwithstanding the fact that a contract nowadays may involve immense sums of money and great difficulties and problems of construction. Some contracts not only involve the execution of work in a manner never done before, and with which no experience has been had, and again some not only require great feats of construction in an almost inconceivably short space of time, but they may also be accompanied by unusual danger and even loss of life. With all of this to contend with, we make use of an old system of letting our contracts, which, in my opinion, may be questioned and discussed with profit.

Of the three kinds of building contracts, the percentage contract, the fixed-profit contract and the competitive bid contract, I will discuss the competitive bid contract, because it is the one generally used. Nearly all of the discussion which follows applies as well to separate contracts as to a general contract, but for the sake of brevity, the application is made only to a general contract. In considering, then, this important subject, I desire to direct your attention to several leading questions concerning our system of letting contracts.

Does our present system of letting contracts by competitive bids result in securing for the owner the lowest obtainable cost for a building, consistent with good workmanship? On the surface of this proposition, it would appear that an owner always did get his building at the lowest possible cost, or sometimes below that by competitive bids. I suppose that most of you can cite at least one instance where you have suffered loss on a building through unfortunate circumstances over which you had no control, or through some other cause. Each time, however, that a contractor loses money on a job, makes him more conservative on the next building and makes him realize how full of risk and hazard a contractor's bid is. Consequently, the amounts allowed in an estimate for contingencies are much larger than they would be if there were not so much risk of financial loss. It is undoubtedly also the case that the various profits of sub-contractors and material men vary greatly in proportion and amount. It sometimes happens that the contractor will lose money and many of his sub-contractors make more than the average profits on the same job, and if one contractor or general contractor loses money, it does not follow that the building was built for less than the real cost; that is, the actual cost, plus a reasonable profit for all contractors. In compiling the sub-bids which a contractor is required to get before making up his own bid, I do not believe that it ever happens that any one contractor

*Paper read at the Annual Meeting of the Estimators' Club at Chicago, by Mr. George C. Nimmons, of the firm Nimmons & Fellows, architects.

ever succeeds in getting all of the lowest sub-bids that may have been offered on a particular building, nor does he succeed in getting them even if he gets the contract. As a result of our present system of letting contracts, there is scarcely a contractor who has not at some time in his experience been obliged to exercise the most rigid and severe economy, to the great displeasure and disapproval of his sub-contractors, who were in no way responsible for his signing a contract in which both he and they were subjected to loss. This has naturally brought about a condition in which most of the sub-contractors and material men have their particular friends and favorites, to whom their lowest prices only are given.

The bidding on a large building involves the securing of prices on different products and materials from a great many sources. It may extend from the manufacturer down through the hands of many intermediate dealers, to the origin of the raw material. It may involve hundreds of people. All of these dealers and sub-contractors are obliged to expend thousands of dollars yearly in taking off quantities and making figures on plans from which they do not get a dollar in return. The amount of useless work done yearly in this country in that way must be an astonishing item, if it could be computed. The result of it all is, that the contractor and dealer add to their bids the expense of all this wasted labor and the owner pays for it. Here is a great waste going on constantly which increases the cost of building by reason of our system of competitive bids.

The amounts added to bids for contingencies are very considerable. Contractors must of necessity safe-guard themselves in their bids, not only against troubles which may not occur with materials, but also against labor troubles, which are sometimes very expensive. The uncertainty at times of prompt delivery of materials by railroads, when time is the essence of the contract, often makes the purchase of expensive stock material a necessity. The lack of space to handle material in the congested part of a city, is at times a matter entirely problematical as to cost and here again a contingency item must be added.

The extensive builders' equipment, needed for a modern building, cannot sometimes be closely calculated as to cost, on account of new and complicated forms of construction, which often occur in the construction of a building. These, and other causes of uncertainty in the cost of building construction, are usually allowed for by the contractor in his bid at a cost greater than what they actually amount to in the construction of the building.

The taking of competitive bids is a complex and intricate process. The theory of a sealed proposal is beautiful and the practice of it originally may have been ideal. But now, a sealed proposal is based on prices and information that may come from a hundred different sources and the proposition is entirely different from what it must have been originally. The complications that may arise, the opportunities that may occur for loss for some and immodest profits for others, are very great. The very nature of our system nowadays invites and encourages the opposite of that for which it was intended, and I firmly believe that the result of competitive bidding, as a basis on which to let a contract, does not, as a rule, result in securing the lowest possible cost for a building.

The undue financial risk and hazard connected with signing the average building contract are harmful influences which make themselves felt all through the operation of erecting a building. Of course, it is not denied that there is risk or chance in every business transaction. Risk cannot be done away with in building contracts, but it is very evident from the results of our method of letting contracts and from the great difference in the amounts of the bids, that an undue amount of risk is taken with the average building contract. The contractors themselves do not agree with any accuracy as to what the cost of a building is. The bids often vary several times the amount of the contractor's profit. The minute a contractor signs a contract

for an important building, he assumes a responsibility far greater than the merchant or manufacturer does in his business. I believe the risk of a contractor for financial loss is far greater than was ever intended by that genius who first said "Competition is the Life of Trade." Competition in building is not that kind of competition; it is really speculation, and sometimes on account of the complication and difficulties of our modern construction, it is far more hazardous than buying margins on the Board of Trade. It is a gamble, pure and simple. When you think of it, and when you consider that the building industry was the first made use of by man, to build his shelter and home, and when you think that the building industry is the most important one of civilization, it does seem to be a great wrong that we, by the use of an antiquated system of competition, should make of this noble calling a gamble and speculation. There is no calling on earth that better deserves its reward than the building industry. Under our present system, a contractor, as a rule, is selected, first of all, on a basis of the lowest bid. Consideration of a man's integrity, his ability or character, have very little to do with it, if there is any great difference between the bids. With the architect present to police the job and see that nothing is missed, the owner is usually willing to fight it out along these lines.

It is greatly to be regretted that this state of affairs exists, but it seems to be the only natural outcome of our system. When a contractor secures a contract under these conditions, his responsibility is very great, and on this account, his anxiety naturally has the effect of shaping his methods of procedure, all to one purpose. This has an evil influence on the work and on all those connected with the construction of the building. The effect of this unhealthful condition of affairs tends to preclude any thought of the permanency and excellence of the work, beyond that required in the contract. It extends to all the workmen and discourages thoughts or ambitions of good craftsmanship on their part. Who among the tradesmen have time to consider that a brick skillfully bonded at some critical place, might add years of endurance to a wall, or that a nail driven on a slant might hold a piece of lumber far longer in place, or that a bit of paint added in some concealed place might make a piece of metal last twice as long? Why is it that the good, old-fashioned ways of bonding brick, such as our forefathers learned in England, have given way to the modern way of throwing brick into a wall, which often goes with hollow spaces and weak places in it, in spite of the most rigid inspection? Why is it that the old-time method of mortising and doweling timber, which went to make up the strong and rigid framework of our houses, has given way to the modern system of so-called balloon framing, where there is hardly a mortise or tenon to be found? What is it that is influencing our methods of construction, and in some respects making them far inferior to the old-time ways? There is an influence from some pernicious cause doing this. It is not that our tradesmen are incapable; it is beyond question, traceable largely back to one cause, and that cause is competitive bidding. Competitive bidding allows no time under the contract for improvement in craftsmanship. All the skill, and all the art of the workmen are devoted to one and only one end and that is speed; speed at the expense of endurance or merit, or art in the work.

Another effect of our present system to be considered is the bearing which it has on the relation between architect and contractor. Under our uniform contract the architect acts as the agent of the owner and is supposed to furnish the contractor in the plans and specifications a complete guide from which to erect the building. The architect has conceived the building in his mind and drawn out this conception on paper, so that others may be able to translate the mental image into stone, or brick, or other material. The contractor and his workmen are supposed to be co-workers with the architect, working all together for the good of the building; first, to fortify it against time, its worst enemy;

to build it economically, so as to make it best serve the purpose for which it was created; and to make it beautiful as a whole and in every part, so that it may take its proper place in the world as a welcome addition to the buildings of its time.

The architect, the contractor and all his men, should naturally be drawn closely together in a sympathetic bond of common endeavor, just as they used to be in olden times, when they made those beautiful carvings and did that exquisite workmanship, which we have never since equalled.

If the characteristics of our people have been truly reflected in the nature of our architecture, then our buildings must be distinctly marked with evidences of the strenuous and economic commercial spirit of the times. Our greatest structures are *not* those dedicated to religion, art, or science, but to commerce. The greatest of all is the office building. Yet, if the signs of the times are read correctly, things are already changing and will change more in the future. As men acquire wealth and reach the stage of competency in their fortunes, they are beginning again to realize that financial supremacy and commerce are not the only objects of human existence. They are awakening to the fact that there are in the world other things of great intrinsic value besides money. There is surely coming a time when you, the builders, and we, the architects, will have an opportunity to create an architecture which shall at least be devoid of the narrow influences of our times.

In conclusion, I wish to make a few suggestions as to the cure for the evil effects of competitive bidding. I realize, I hope, as much as any one, the great difficulties in the way of making any radical change in a custom so long established, as competitive bidding. However, I believe that this system, which may have been all right in its day, has worn itself out. I believe that it is a misfit on our present day conditions; that our modern problems of construction will in time force it out of existence. To illustrate this, I wish to refer to the comparatively new problem of letting a contract for a reinforced concrete building. This new kind of structure, may be successfully built, with a reasonable degree of safety, provided that it is properly designed, and carefully and conscientiously constructed. Yet if any one of the many important parts of this building is slighted, or if the contractor, or even one of his workmen, undertake to apply any money-saving economies, or rush-methods of the ordinary building, the inevitable penalty is awful. The builder or the workman is liable to answer for it with his life. Here is a new feature in the problem, that will surely receive a hearing at the letting of the contract. It will soon become evident to the public, if it is not already so, that competition only on the basis of cost cannot with safety be entertained for a concrete building. Those sterling qualities of character in a builder on which so much depends for the excellence of the work, will receive a new and higher appreciation. A builder's ability, his integrity, his loyalty, his skill, his aptitude for his work, will again be put at a premium as these qualities used to be in olden times. When I refer to the concrete building, I have in mind not only the concrete building familiar to us with the ordinary slab, or floor beam construction, but those wonderful constructions in Europe where astonishing things are done with concrete, both structural and ornamental. These great problems will undoubtedly come to us, and then the contractor will be called upon to execute the most difficult work that has ever been attempted. His ability and his skill will then be even in greater demand than they are now, and the best man will no longer be selected by competition on price. However, this instance of the concrete building was given in this connection only to show that the character of this work is such, and the danger of accident so great, that an owner and, therefore, the public will find that competitive bidding is not a safe way to let the contract for a concrete building.

In considering the remedy for the evil effects of competitive bids on con-

tracts, it is evident that a very radical change must be made if any great good is to result. To suggest a scheme which would in itself be radical and at the same time effective, is a very difficult problem, and it is likely that if an improvement comes, and I surely think it will, that it will come about gradually. It is necessary, first of all, to educate the mind of the public and to bring it to understand that there are a great many defects and evil results in building operations from our present system. I believe the difficulty would be largely overcome, if the problem of determining the real cost of a building, beyond question of a doubt, could be worked out. The fact that contractors' bids for the erection of every building differ so widely in amounts is a feature which has made the public regard the estimate for every building with suspicion. I understand that in England where the estimator, called a "Quantity Surveyor," who is independent of the contractors, takes off the quantities of materials, that the bids of contractors, based on these estimates do not differ nearly as much in amount as do the American bids. I am informed that there is very little difference indeed between the bids of English contractors, as based on these estimates furnished by the "Quantity Surveyor." I do not believe that there is a single owner about to erect a building who would not be willing and glad to enter into a contract with any good contractor, and pay him a reasonable profit on all work done, if the owner could be assured, beyond a doubt, of the real cost of the building. On the other hand, I do not believe that there is a single contractor who would not be glad to undertake any ordinary contract, provided he was assured also of a reasonable profit. I believe firmly that these are the facts, and if they are, the problem would seem one of getting these two parties together on the proper basis.

Following out this line of thought, I have taken the liberty of outlining a system which I believe would meet the requirements in a general way. However, I wish it understood that this is given merely as a suggestion, with the hope that some of you, who are better qualified than I, will some day start the movement for a reform, which is so much needed in this part of our work.

The outline of my suggestion for a system of letting contracts, is as follows:

1st. To establish some way of determining the absolute cost of a building.

2d. To have the estimate of the quantity of material and labor made by some one independent of the contractor.

3d. To have you, gentlemen, the estimators, set up offices of your own, as the English Quantity Surveyors have done, but estimate not alone the quantity of material as they do, but the quantity of labor as well; you to receive your pay as they do, by getting a percentage on the cost of buildings, and to be appointed as the estimator for a building by the owner or architect.

4th. The contractors to agree upon, as their profit, a reasonable and proper percentage, on the cost of buildings, and to execute a contract as they do now by hiring all labor and buying all material. Each sub-contractor in the various building trades to take his work on a regular percentage of the cost of the building; either separate contracts, or a general contract to be let for the building, according to the wishes of the owner.

5th. A definite fixed sum as the cost for the building and of each part of the work as estimated by the independent estimator to be agreed upon by the owner and contractor or contractors as the proper cost for the building, or the several parts thereof. This sum or sums to made a part of the contract, or contracts. If, in executing the work, the amount of labor or material, or both, exceeds in cost the amount or amounts named in the contract, this excess of cost to be borne equally by the owner and the contractor, or contractors. If the cost of labor and material is less than that agreed on in the contract, the money so saved should be equally divided between the owner and contractor or contractors.

George C. Nimmons.

Shoddiness of American Building Construction

We deplore the really cruel, unnecessary, immoral waste of property by fire, and we have much to say about the low standard of work executed by our mechanics generally, the never-ending repairs we have to make to our buildings and their all too rapid deterioration; indeed, some of us complain anent some of the new fashions of construction that actually permit of buildings collapsing even while they are in process of erection. Various reasons are advanced for these deplorable conditions, but it seems likely that, thoroughly sifted, we could reduce and charge them all to the one sin of shoddiness.

Shoddy construction, like most other sins, is serious in itself, but still more so in its effects and what might, flippantly but expressively, be termed its "side issues." One of its most important controlling factors is the desire of some builders to make undue profits; these men have encouraged and still encourage slovenly, incomplete, shabby work on the part of their employees—therein lies the profit—these get into the habit of doing that kind of work, the contagion spreads and today, as a nation, while we are noted for our ability to do many excellent things, the general character of our labor measures up to a deplorably low standard. More than that, the shoddiness that intially was injected into our buildings for illegal, immoral reasons, has left its marks on our laws as well as upon the "yielding of our labor;" at some time or another it was winked at by the authorities or permitted under too lenient and lax regulations, until it actually became the gauge by which all things were measured. Digest the building laws of any of our cities and see how really apologetic we become in demanding and insisting upon work that is so palpably for the absolute benefit of all and is so clearly the only thing to do, but which is of but little higher grade than the indifferent. Insurance companies have awakened to the fact that big returns followed by tremendous losses, mere magnitude of business, do not always spell profit and are beginning to make commensurately low rates on well-built, fireproof buildings, while raising the average rate on deficient construction. At the same time, little by little we have succeeded in getting our cities to likewise raise the standard of exaction to the point where the too despicably inferior is either not permitted at all or relegated to the outlying districts. And the result is that our people, who have grown so used to "shoddy," actually feel that they have a grievance against both laws and insurance companies, that their rights are being assailed in that they are no longer permitted to build everywhere and anywhere the same poorly constructed buildings in which they formerly indulged.

The average layman sins in this respect through one part cunning, two parts hope that he will escape the natural result of flimsy construction and ninety-seven parts ignorance. The man against whom these remarks are particularly directed is the "speculative-builder," the one who knows well enough how things should be done but who deliberately and with malice aforethought slurs and skimps and skins a building to the utmost of his sometimes really splendid ability, for the purpose of increasing his profit. He is the gentleman who builds a house with two by six joists in the flooring, culled boards three inches apart for sheathing, paper of inferior quality and without laps, green pine finish, and all the other etceteras of a "skinned" house, and paints the whole thing in most alluring colors—mixed largely with coal-oil and guaranteed to last at least two months—lays some sickly sod on top of broken brick, plaster dust and the rest of the building debris doing duty as a lawn, and then inserts glowing advertisements in the papers cunningly calculated

to catch the unwary; and alas, before many days does actually hook his prey and land him into a very net if not a slough of despond.

I see much of that gentleman's work in every city throughout the country, but perhaps a little more of it right here in Washington than anywhere else. Few people here ever think of building a home. One person that they are afraid of is the architect, and perhaps not without reason. "Extras" and delays are rather effective bugaboos that have been held up to them. So they prefer to buy a house, already finished, which they can see and know all about in the flesh rather than merely on paper, and they dicker and deal with the speculator and lo, he flourishes, groweth fat and rideth in automobiles. They do not build homes here, dainty, comfortable little detached houses, but great rows in tens and fifteens and twenties, of dark, ill-constructed, tawdrily finished boxes, veritable fire-traps, or in mild terms, rottenly built city houses. The poor beguiled wretch who gets into one and who has paid over his hard-earned shekels soon finds that the chief charm of its plumbing system is that the bath-room is entirely tiled in white and "looks good." The real plumbing is as shabbily done as the none too strict or over-rigidly enforced regulations permit; the next winter after occupancy he finds that his furnace is too small and that the pipes are on the outside walls; and his troubles do not begin then but *continue*. His insurance rates are distressingly high, his repair bills enormous and he curses the day that he first thought of buying a house.

For my part were I anathematically inclined I should heap coals of fire upon the head of every "speculative-builder," or at least upon most of them, yea would I even legislate them out of their nefarious trade.

The incomprehensible thing to me is, why do architects who make some pretence of being somebody permit their clients, however foolishly inclined the latter may be, to adopt the methods and manners of the aforesaid individual in erecting homes and other buildings for their own occupancy, not merely for sale. I have in mind a house that I passed a day or so ago. A huge four or five-story affair of stone and terra cotta, ornate in the extreme, pretentious and bearing every external appearance of being a veritable palace, a house that one should judge would cost anywhere from $75,000 to $100,000. It is on the crest of the Sixteenth Street Hill in Washington, D. C., near the "Henderson Castle," and I am told it is to be occupied by the French Embassy. Every external indication would point to its being tended for a permanent and stately domicile. It will probably house valuable diplomatic lives, archives of international importance, bric-a-brac, furniture and other plunder of great cost, and presents every reason for being well-built. I was curious enough to step inside to see what system of construction was being used. I stopped but a moment, long enough, however, to note that there were wooden floor joists, wooden roof construction, wooden lathing, wood, wood and more of it. The pretentious exterior was in reality but the whited surface of a dismal sepulchre, a fire-trap of the most deceptive nature, a monument to the assininity of the owners and the culpable negligence of the architect!

People say that the architects are not to blame, that their authority is not to be compared to that of a doctor. A doctor diagnoses the ailment of his patient and "orders" him to do thus and so. Most men will obediently follow directions, believing that life or death depends upon that obedience. Not so with the architect. He is not hired to "order" his client; he is his willing, obsequious and ever-obedient servant. Granted. Generally he is even so afraid that the aforesaid client will get away from him that he will put the cellar on the roof of the house and the attic in the basement. But if the architect, through his own poor management of affairs, has brought himself to that pitiful state of servitude, he should still have sufficient professional pride and manliness, if he can not "order" his client, at least to labor with him and point out

the inevitable advantages of building well rather than shoddily. "Shoddy" has such a hold upon our people, our architects, our laws, that to get them all out of the habit, so to speak, we must absolutely use force added to persuasion.

At different times I have advocated a sliding scale of taxation, the maximum tax upon imperfect, dangerous buildings, requiring the maximum of protection, and the minimum upon those structures sensibly built and presenting the less vulnerability to fire and other attacks, and costing the community the minimum for protection. Likewise have I besought the insurance people who have their own constituents' best interests at heart, to raise their rates on flimsy construction to a prohibitive point. Some good has already been done, though much yet remains to be accomplished. But I am here again today in an appeal to the architects—those who think, those who are earnest, and have some public spirit—to join, to co-operate, to really work with some vim in an endeavor to get the states to unite in passing adequate and uniform laws clearly defining the minimum of excellence permitted in any construction, in city, town or hamlet within the state's borders. This is not a substitute plan for sliding taxation nor is it suggested because the insurance companies, though they have raised their rates on poor building, have not made them high enough to bar or to prevent new firetraps being erected. It is an adjunct to both of these means of securing the desired end.

Outside of the large cities there is, at present, little regulation of buildings by law; anyone may build anything he wishes. The village of today is perhaps the city of tomorrow and the citizens of the larger places will for years have to suffer for the building sins of their progenitors, the sin of shoddiness. Moreover, even in some fairly large cities building regulations are in a primitive state. Regulation of building laws is the business of the cities, but the state is an interested party and the city is but the child of the state.

Some states have already taken up seriously the matter of better building laws; fire marshals have been appointed and given certain duties and authority. But more is wanted, not alone more states to make this first step, but those that have made it to go farther, to enact laws, minimum building requirements, to which all cities will eventually be obliged to conform. Let each city do as much more toward this end as its own good sense may dictate, but the state should decree the maximum amount of shoddiness that it will tolerate, and the lower that maximum is placed the better it will be for the state and for the city.

The International Society of Building Commissioners, of which society I have the honor of being an officer, has made a stirring appeal on behalf of such legislation to the governor, the legislators and the press of every state in the Union, and we are hard at work in the preparation of a uniform code of building laws for presentation simultaneously to all the legislatures at their next convening.

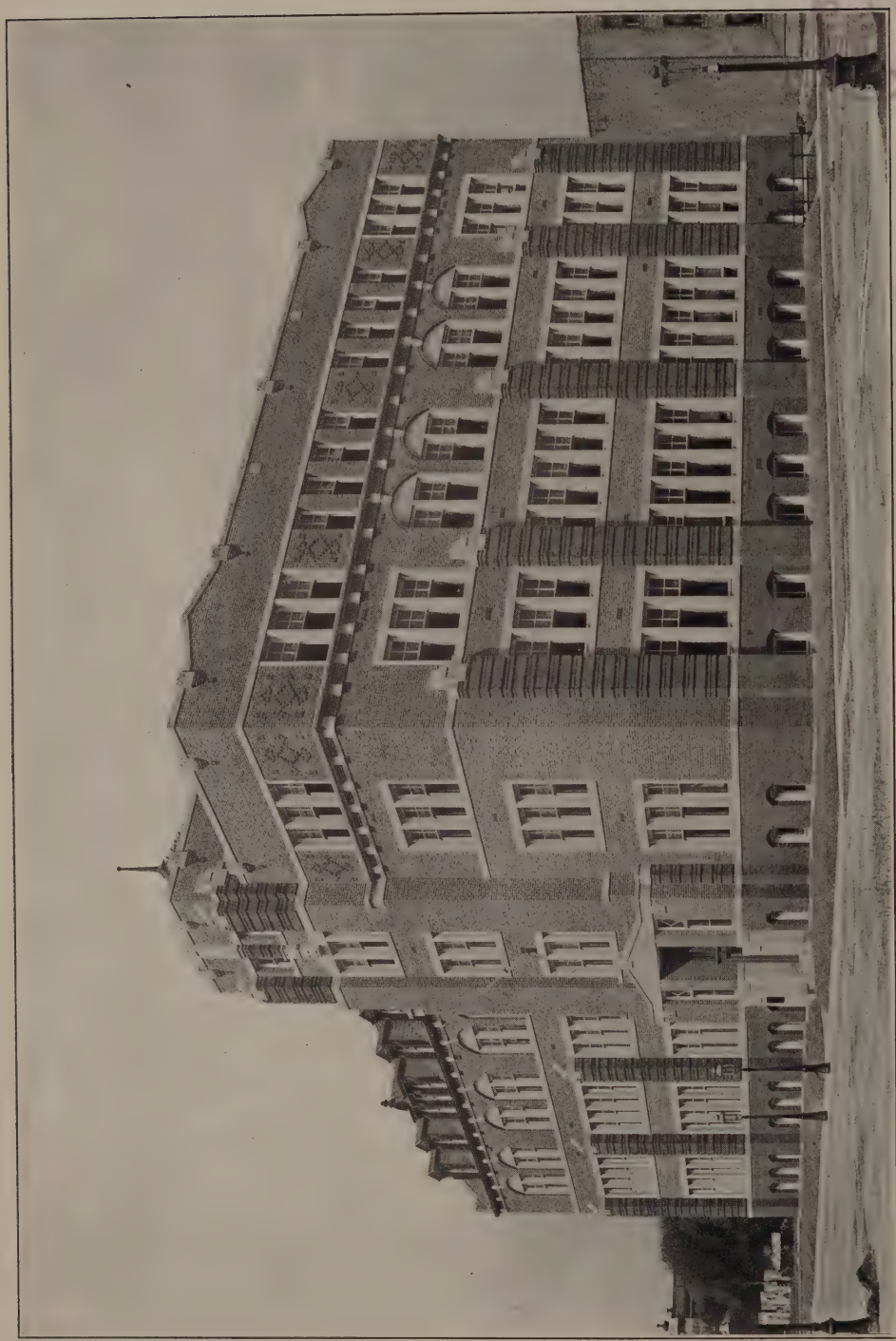
I bespeak this journal's and the architects' co-operation and hearty, effective work on behalf of a higher standard of building construction, not only for our large public or business structures, but for the smaller and less important buildings of which our residences, apartment houses and suburban homes form no small part.

F. W. Fitzpatrick.

The Building of the American School of Correspondence

The building of the American School of Correspondence, illustrations of which are published herewith, is a notable addition to the group of interesting business structures which the Architectural Record has been publishing of late years, and its interest is due both to the excellence of its handling and to the more than usually happy conditions under which it was erected. As a general rule important business structures occupy restricted sites on crowded thoroughfares, and the architect has to submit to many conditions which make his work at the best a compromise. But a school of correspondence, as its name indicates, bears much the same relation to an ordinary business concern as a mail-order house does to a department store. Its business is transacted largely by mail, and consequently it can avoid the necessity of building on very expensive land in the heart of the city. It requires practically an office building, covering a large floor space in a respectable but not necessarily a very central neighborhood, and its large floor space can be obtained by the use of a spacious site rather than by the erection of a many-storied structure. It is necessary, of course, that its offices should be very well lighted, as in an ordinary office building, but the interior requirements as to the size of the rooms are of a very varying nature, which permits and calls for certain unusual variations in the design. Furthermore, inasmuch as a school of correspondence is a pedagogic as well as a business enterprise, it is appropriate that the building should express its affiliations with institutions of learning. Propriety does does not demand a design which is rigidly utilitarian in character. On the contrary, such a building will the better fulfill its purpose, provided its architecture evokes associations with one of the several collegiate styles of the past.

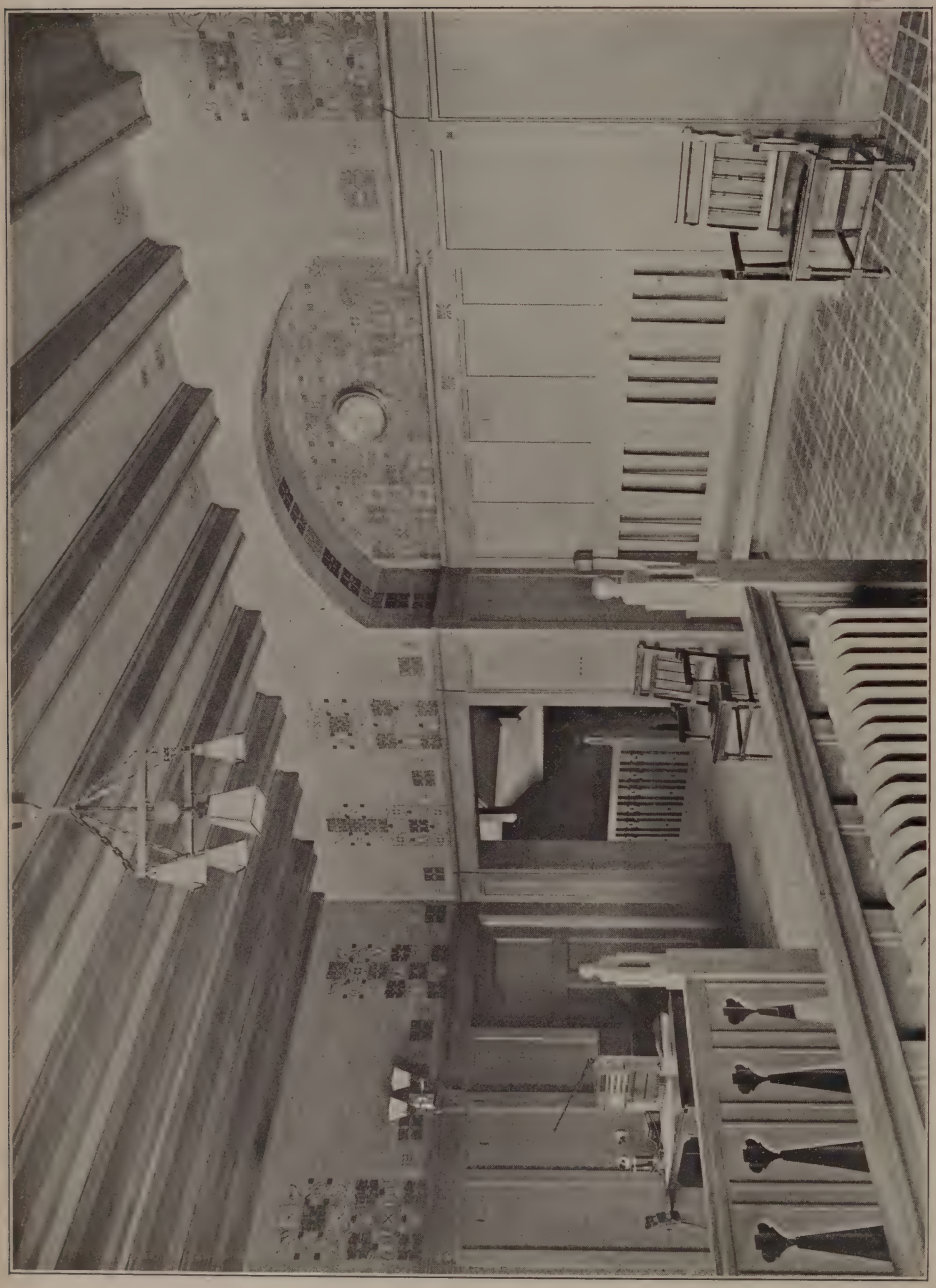
The building of the American School of Correspondence, designed by Messrs. Pond & Pond, admirably fulfills all these conditions. The architects have designed an edifice which somehow looks business-like without ceasing to be collegiate, and their success in achieving this result has been partly due to the spacious site on which the building stands. This site faces on three streets, and has moreover an abundance of light and air in its rear. Each of the three façades has features of special interest, but they are bound together by an uncompromising integrity of treatment. The core of the design consists of a bold tower-like projection, containing one additional story, whereby the entrance on the main facade is emphasized. All of the building to the right of this tower, whether on the main or on the side street, is subjected to a similar treatment, which is different from that part of the building to the left of the tower, chiefly because of the treatment of the fourth story. To the left the fourth story recedes and is lighted by dormers, whereas to the right it is carried through and terminates in a parapet. This arrangement is obviously dictated by the different uses to which the different parts of the floor are put; but it is as successful from the architectural as it is presumably from the practical standpoint. The building obtains a balance which could hardly be achieved by some formally symmetrical arrangement, and if the effect does not wholly satisfy the eye, it makes a strong appeal to a candid architectural intelligence. In another matter, also, have the designers been very successful. They have been obliged to supply an abundance of windows, which have very little solid wall space on their three façades, and the effect of which was hard to reconcile with the solid strength of the tower. This discrepancy has, however, been measurably removed by the buttresses, which have been run up on the several faces of the building as high as the second story. These buttresses add enormously to the consistency of the design, while at the same time they intensify the collegiate suggestion, which was already fixed by the central tower.



THE NEW BUILDING OF THE AMERICAN SCHOOL OF CORRESPONDENCE. Pond & Pond, Architects, Chicago, Ill.

THE NEW BUILDING OF THE AMERICAN SCHOOL OF CORRESPONDENCE—FRONT.

THE NEW BUILDING OF THE AMERICAN SCHOOL OF CORRESPONDENCE—SIDE VIEW.
Chicago, Ill. Pond & Pond, Architects.



THE NEW BUILDING OF THE AMERICAN SCHOOL OF CORRESPONDENCE—HALL.
Pond & Pond, Architects.
Chicago, Ill.

NOTES & COMMENTS

DECORATING AND FURNISHING THE HOME

The success of the suburban house, especially its interior, depends in large measure upon the proper co-operation of the owner with the architect. The owner is much more prone to consider himself as qualified to dispense with the services of the architect when the subject is the decorating and furnishing of his rooms than he is in matters of design which pertain to the exterior. This is only natural. How many of one's friends can one name who will not be very sure not only that they know exactly what they want in the decorating and furnishing of their homes, but who are as ready to assume that they know how to get what they want. No one is so ready to acknowledge disappointment and dissatisfaction with the work of an architect who has been willing to assume that his client is really able to direct the decorating and furnishing of his or her home as the man or woman who has had the experience. But even after such an experience the majority of owners do not realize the cause of their misfortune. They cannot be made to understand that had they co-operated with the architect and allowed him to perform the function for which he is qualified, and not they, they would undoubtedly be the architect's strongest champions, instead of his decryers. The benefit of such a relation between architect and client is twofold, the client is satisfied and the architect has the satisfaction of having done his work well and of making of his client a friend and a business asset. Houses which have been designed and decorated under such conditions never fail to evoke general admiration. It is such a group of which we illustrate the following interiors. These houses, except one which is at Orange, are situated in Montclair, New Jersey, a town of some sixteen thousand inhabitants, which is reached by a half hour's train ride from New York. They are all the work of Frank E. Wallis, a New York architect, whose practice is largely confined not only to suburban houses, but to the town of Montclair, where his work is well known to the townspeople.

This architect has made himself the intimate friend of his clients and has faithfully reflected in their homes what this intimate personal contact has revealed to him. Each client is for him an individual case which he solves according to its circumstances, the solution being based always on personal knowledge of his clients' likes and dislikes, their social position and all the other elements that enter into the making of the home. Possessed of this information, he is really in a position to say that he knows what his clients want. The rest depends entirely upon his own capacity and resourcefulness as a designer.

It is Mr. Wallis' theory that at least one room in the suburban house should have its basis on some historic style or period. On this room, he believes, the designer should lavish his most conscientious study, not slavishly to reproduce some historical example which seems applicable to the case in hand, but to interpret the characteristics of the style in which he is working. In thus rendering architecture he is not an *archaeologist* who *reproduces*, but an *architect* who *creates* on a given basis under new conditions, modifying his basis when the contions demand it. The variety of Mr. Wallis' interiors shows how well his style theory works in practice. The reader will note in those rooms how the characteristics of each style have been brought out by the color of the materials as well as by the simplicity or ornateness of the design, as the case may be. The confidence of client in architect is shown in these interiors, especially by the fact that the architect was not only designer and decorator, but was consulted in the selection of the furnishings which help in no unimportant part to produce the total effect. It should be mentioned also that cost which is generally supposed to be in proportion to the effect desired stands in no such relation in the design of these rooms, some of the best in design being the most economical financially. The paramount consideration was of architectural propriety, and in many cases it was the strictest adherence to the architectural requirements of the case that, brought about by the owner's confidence in the architect, not only secured the desired effect, but secured it at an actual saving in dollars and cents.

Montclair, N. J. A FLEMISH DINING ROOM. F. E. Wallis, Architect.
(Photo by A. Patzig.)

Montclair, N. J. A DUTCH DINING ROOM. F. E. Wallis, Architect.
(Photo by A. Patzig.)

Montclair, N. J. A LIGHTER FLEMISH LIVING ROOM. F. E. Wallis, Architect.
(Photo by A. Patzig.)

A LIBRARY IN THE ADAM STYLE.
(Photo by A. Patzig.)

F. E. Wallis, Architect.

Montclair, N. J.

A COLONIAL DINING ROOM WHICH LEANS TOWARDS THE GREEK.
(Photo by A. Patzig.)

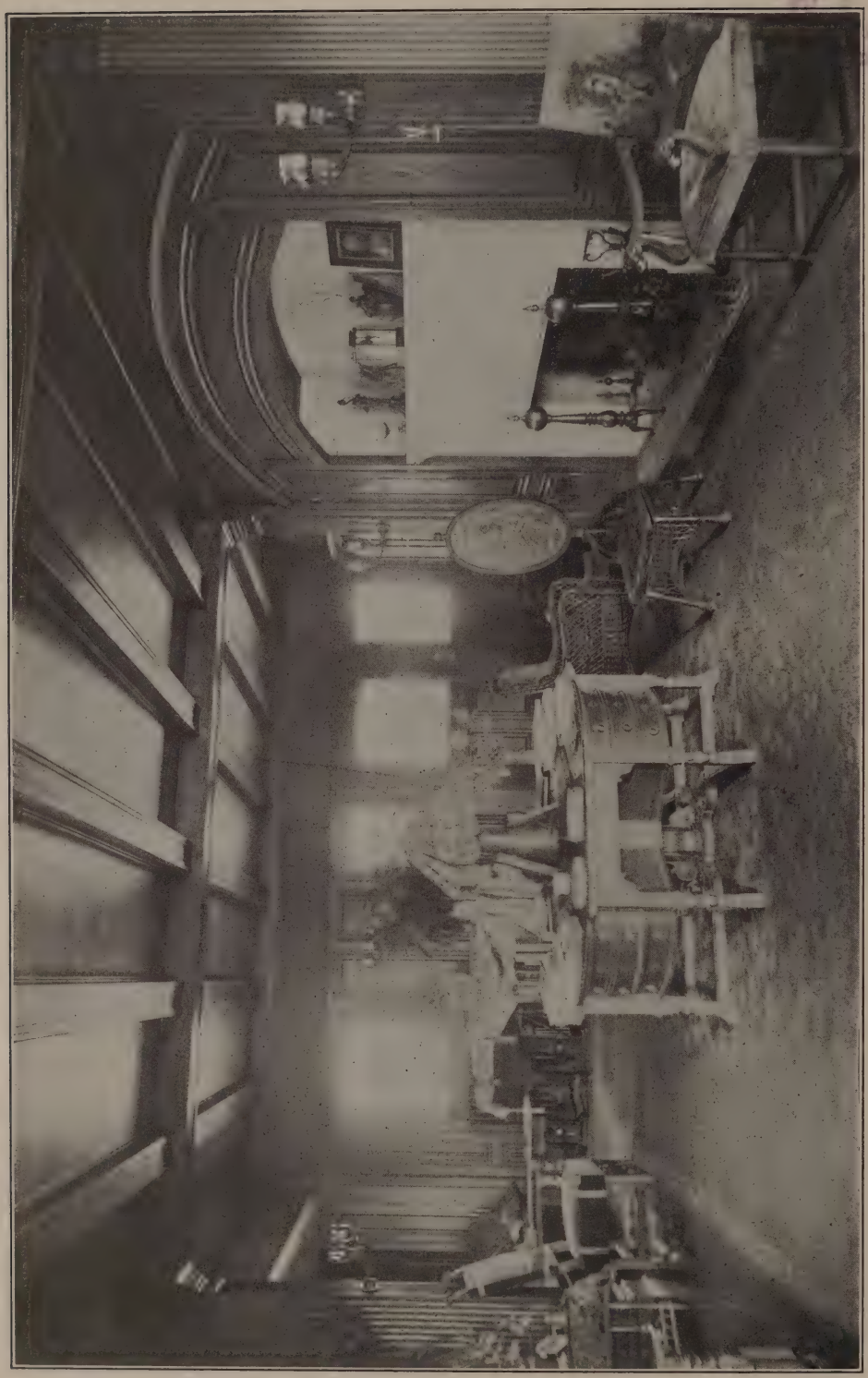
F. E. Wallis, Architect.

Orange, N. J.

A FLEMISH LIBRARY.
(Photo by A. Patzig.)

F. E. Wallis, Architect.

Montclair, N. J.



A LIVING ROOM IN WHICH GREEK DETAILS ARE ADMIRABLY ADAPTED TO THE CONDITIONS.
(Photo by A. Patzig.)

Orange, N. J. F. E. Wallis, Architect.

CHARLES FREDERICK NAEGELE A PAINTER OF INTERIOR DECORATION

The interior decoration of Mr. F. S. Flower's residence, 612 Fifth avenue, New York, calls attention to the decorative work of Charles Frederick Naegele, an artist, who has hitherto been known chiefly as a successful portrait painter. The great sense for color which characterizes his portrait work and his feeling for the beauty of form qualify him in a high degree for decorative painting of an architectural character.

We illustrate on page 38 a model for a medal, designed by Mr. Naegele in 1902, to commemorate the four hundredth anniversary of the discovery of America. In the center of the medal is carved the head of Columbus, and as the artist could obtain no authentic likeness of the great navigator, the head is made to express his reputed characteristics and genius. It is shaped to show his imaginative or intuitive qualities; the forehead indicates the qualities of a man who can command and control others, while the perceptive qualities are also indicated. The sensitive mouth and chin show still another characteristic of the great discoverer. The central coin bearing the head is surrounded by wavy lines indicating the ocean, while sea monsters and the ships Santa Maria, Pinta and Nina are also to be seen. The rudders are all turned in, as if to go to an unknown land, of which only Columbus knew. The late Augustus St. Gaudens said that this was one of the best commemorative medals he had ever seen, especially for its symbolic qualities.

Among Mr. Naegele's ideal figure paintings the best known is "Divinity of Motherhood," a work which was awarded a gold medal at Boston in 1900 and sold for $3,000. In these ideal heads, the painter shows his peculiar style more emphatically than in his portraits; here his brush is restrained neither by the features nor by the client's preferences. The great charm in these ideal compositions is not the charm of sensuous, passionate womanhood; it is the charm of untouched girlhood or of true motherhood which he so strongly, yet delicately portrays. It is the inner life, the life of the soul which is depicted in the eyes, in the expression of the face and often even in the hands. Sometimes he may go too far as regards minute execution, but this is due to the desires of his sitters. He never strives after a photographic likeness, but penetrates into the mind and character of the person he is called upon to paint. For the background of his ideal heads and even for his portraits, Mr. Naegele often uses wood of different kinds, which he treats with a varnish. This simple process has proved to be very decorative and brings out in the wood certain atmospheric qualities, whose presence in that material have not been suspected by artists.

Mr. Naegele also paints landscapes of fine tonal quality and it is this versatility which accounts for his success as a decorative painter and decorator. Whenever he paints a panel, a frieze, or a decorative picture he undertakes to harmonize it with the room, or vice versa. His "Ring of Youth," a painting in a bedroom of Mr. Flower's house, referred to above, illustrates admirably the qualities which characterize his work. There is a charming happy youthfulness in the picture, a grace and harmony conducive to a feeling of repose and joy. It is also to be commented that Mr. Naegele is a man of a philosophical turn of mind and that there is frequently to be found hidden in his paintings a symbolism where the observer least expects it. "The Ring of Youth," for instance, appeals to the higher senses and seems to express the eternal youth which exists in all whose minds and souls are open to a higher life. A critical observer will at once realize that the impression is not one of naked figures. True, they are partly nude, but not naked, and are characterized by a chastity far from prudery. This decorative frieze goes around all four walls of the room. One fragment, the largest, covers the width of a wall, which is uninterrupted by any doors, windows, or mantel. It shows dancing nymphs, who form a ring. The figures are approximately life size and there is much swing and grace in the lines. There is a special charm in another fragment decorating one of the smaller walls and placed over a door, thus forming a panel by itself (Fig. 4). The figures and the landscape are here much smaller. The picture represents a procession passing in the distance. On a hill may be seen a temple to which the offerings to the victor are being carried. One of the nymphs, who has large, graceful wings, "to wing her steps," half flies ahead of the others. She is followed by a group playing a hymn of victory on antique musical instruments. A little girl leads the way before the conqueror, a peaceful, gentle hero who has placed his dear one on the horse which he leads himself. In the distance follow other nymphs carrying garlands of flowers. The picture very much suggests Claude Lorraine, only it shows a more mod-

FIG. 1. THE RING OF YOUTH.

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ern technique. This section of the frieze is the most beautiful part of the ring and would form a very decorative painting by itself. True to Naegele's ideal of maidenhood are two girls shown in Fig. 7, who are watching the passing procession. The heads are nearly life size and the bodies are partly hidden in roses. The girls appear to be standing in a bower of roses. Garlands of roses also form the connecting links of the frieze all around the walls.

The coloring of Mr. Naegele's compositions is governed by scientific rules. Blue, red and yellow are the primary colors which form a harmony of grays. Green is produced by mixing yellow and blue; purple by mixing blue and red; orange by mixing yellow and red, the secondary colors. To these laws of color harmony Mr. Naegele is true, as well in his painting as in the decoration of rooms, such as we illustrate. For him the ground colors are the chords on which the melody is based. The frieze "The Ring of Youth," for example, decorates a room which is intended as a place of rest for a man overburdened with work and nervous strain. The prevailing tone of the room is a soft peacock blue. Nature is, on the whole, a safe model to follow. The dark color of the earth, the middle tints of the mountains and trees and the light tints of the sky produce a refreshing and restful impression, and if we choose the same scale of values in decoration, and also in clothing, we receive the most harmonious impression. Mr. Naegele has selected a carpet of dark peacock blue for this room. The walls are of a trifle lighter shade and the frieze is likewise harmonized to the same dark blue, which is repeated in the landscape. The other colors used in the frieze are all in harmony with this blue. The ceiling is plain and of a light color. The furniture is in dark mahogany. The room should soothe the most irritated nerves.

The room opposite to that just described is a green room. Mr. Naegele believes with the occultists regarding the influence of color and the methods of using it. This room is the room for thought. The tone of the green is soft. It is repeated in the frieze, showing a sea with a wide endless horizon, and dunes, forming wavy lines, where cedars and shore oaks grow. The coloring harmonizes with the green ground-tint and is kept in pinks, delicate purples and greens. The impression conveyed is one of a vast infinity and there is nothing in the room to attract the material senses, because the designer intends it to be symbolic of intellectual life. It is calculated to lead the thoughts onward, without distracting them by material objects.

A more cheerful character was desired by

NEARER VIEW OF FRIEZE SHOWN ON PAGE 70.
of Chas. F. Naegele.)

the young mistress of the house for her room, hence a light blue was selected. Thus the purpose of the room, the individuality of the owner and the harmony of color have all been observed in the decorations of the house. The artist has carried this so far as to take into consideration the impression produced on a person standing in the halls and looking into the rooms. The halls are kept in dark red, symbolic of the earth, and on looking into the peacock blue room, the keynote of which is yellow, one gets the impression of a harmonious chord. Looking in the opposite direction, into the green room, one again gets the impression of a symphony.

Not only is it difficult sometimes to carry out a harmonious scale of color in accordance with the practical needs of a house, but the wishes of the owners also make it almost impossible. In many cases they will introduce notes which destroy all harmony and show an utter lack of artistic understanding. Hard whites are brought into a room of soft, dark tints, "to cheer it up"; trifles of bric-a-brac are placed where nothing should distract the attention from the main scheme of decoration. Because Mr. Naegele's theories are based on artistic and scientific laws he usually succeeds in bringing conflicting desires into harmony.

He is filled with enthusiasm to carry the beautiful into the lives of all. The rich are to be ennobled by an environment which shall be not only opulent but harmonious. While the wealthy have frequently been too materialistic to care for the refining influences of art, others have been too poor even to be able to realize what they have been missing.

To the latter also Mr. Naegele is trying to bring art and beauty, and he has worked out a novel plan of art exhibitions to establish museums, which shall be owned by the public. The plan is intended chiefly for small towns which have hitherto been without anything to develop the artistic instinct. Last winter Mr. Naegele arranged in Watertown, N. Y., an exhibition of paintings by the best New York artists, at the same time holding lectures to acquaint the inhabitants with the principles of art. An entrance fee of ten cents was charged, which also entitled the holder of the ticket to a vote for his favorite picture. The pictures receiving the most votes were purchased by the money taken in at the door and formed the nucleus for a public gallery. At the universal desire of the Watertownites, the first exhibition was soon followed by a second, last winter, and this winter there will be similar exhibits, not only in Watertown, but in several other small cities. The Federation of Women's Clubs is planning a State Art Institute and some prominent members of that organization have

FIG. 2. THE BLUE ROOM IN MR. F. S. FLOWER'S RESIDENCE.

FIG. 3. THE BLUE ROOM IN MR. F. S. FLOWER'S RESIDENCE—
VIEW SHOWING "THE RING OF YOUTH."

612 Fifth Avenue, New York. Chas. F. Naegele, Artist.

FIG. 4. AN OFFERING TO A RETURNING VICTOR—DECORATION IN MR. F. S. FLOWER'S RESIDENCE.
612 Fifth Avenue, New York. Chas. F. Naegele, Artist.

FIG. 5. DETAIL OF FRIEZE IN GREEN ROOM—MR. F. S. FLOWER'S RESIDENCE.
612 Fifth Avenue, New York. Chas. F. Naegele, Artist.

approached Mr. Naegele for assistance to establish elsewhere exhibitions similar to those in Watertown. All of which promises a more thorough appreciation in the future of art in the United States.

C. R.

THE ARAB IN ARCHITECTURE

"Arab architecture is the best presentment of Arab character that remains to us," says L. March Phillips in a recent issue of the Contemporary Review. "No historical evidence can furnish forth to the understanding a likeness of the man so expressive as this architecture offers to the eye. In its eager inventiveness, in the capricious changes, complications and inflections of its designs, in its impulsive energy, and above all, its inherent weakness and instability, there is depicted in this style, if we would but coolly and rationally examine it, a visible representation of the Arab as we know him in history, or as he is to be met with to-day in the flesh in those deserts to which the progress of more stable races has once again relegated him. The stamp and impress taken of him by these eccentric arches and purposeless entanglements of tracery are the stamp and impress which he gave to all his undertakings. His impetuous, yet ill-sustained campaigns have this character; his so-called civilization, so imposing, yet so fugitive, has it; all his thoughtful and intellectual achievements, informed with vague visions and transcendental guesses, have it; above all the man himself, full of fiery, short-lived and contradictory impulses, is the incarnation of it."

"From the moment of the Arab's first appearance on the world's stage we are conscious of a new force acting on human affairs. The old stock of warring ideals which throughout the East and West, among the attackers and defenders of classicalism, had given rise to fluctuations of regular recurrence and similar character, was with the coming of the Arab suddenly modified by the addition of a hitherto unknown ingredient, the effect of which was instantaneous. As a dash of petroleum stimulates an unwilling fire, so the Arab ardor fanned to a blaze the general conflagration which was consuming the old order of things. Destruction, the clearing of the ground for a new growth, was the main purpose of that age, and as a destructive agent the Arab was without a peer. That terrific energy of his, so furiously rapid in its progress, so irresistible in its attack, so blasting in its effects, is comparable only to the light and glancing motions of tongues of flame. But yet, on the other hand, if the Arab energy is like fire, swift and irresistible, it is like fire, fickle. In all affairs of whatever kind, in which the Arab has been concerned, fickleness, equally with energy, plays its part. One is constantly reminded, in dealing with him, or noting his behavior in history, of the lack in him of that faculty of solid reason which lends such unmistakable coherence and continuity to the designs of the Western nations."

"But if this is a true reading of the Arab in war, it will be true of him in other things also. And so I think it is. His whole civilization may be taken as a further illustration of it. If that civilization rose and expanded with the rapidity of all Arab designs, its abrupt and entire disappearance was not less characteristic."

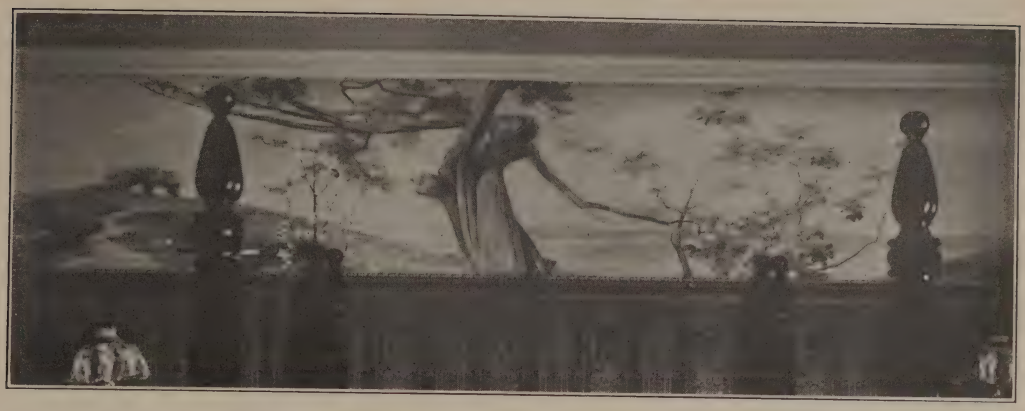

FIG. 6. DETAIL OF FRIEZE IN GREEN ROOM—MR. F. S. FLOWER'S RESIDENCE. 612 Fifth Avenue, New York. Chas. F. Naegele, Artist.

THE GRANT MONUMENT SITE, WASHINGTON, D. C.

Since the publication of the Washington Park Commission's plans for the future development of the capital on an aesthetic basis, there has appeared, from time to time, strong opposition to their execution. This opposition has emanated either from certain representatives of the people who are still in that state of blissful ignorance which Mr. Speaker Cannon so characteristically voiced when he demanded to know what an architect is, or, if that, that certain individuals have created a situation in which their motives are open to a highly unfavorable construction. The latest development of the opposition centers on the placing of the Grant Memorial in regard to which the local Chapter of the Institute of American Architects passed on Nov. 1, 1907, the following resolution:

"In view of the recent publicly expressed comments upon the proposed location of the 'Grant Memorial' adverse to the site, and condemning the destruction of trees, and a general denunciation of the whole plan of which the location of this monument is a part, it seems proper for a local association of men practicing a profession involving the study and decision of similar problems, to express their opinion in regard to this criticism, and to point out what they deem to be misconceptions of the dominating plan, and inaccuracies regarding some of the details.

"We are in hearty accord with all efforts to preserve trees, both in the parks and streets, and will render all aid in our power to avert the destruction of any of them. We suggest, however, that records will show that trees can be moved with safety when occasion demands it; and we assume that due consideration was given to this question in the case of the location of the Grant monument, and that the trees under discussion were found by some competent authority to be unworthy of the labor involved to move them. We can understand and sympathize with the aversion to a change on the part of those who planted them and have watched them grow to maturity. It is a misfortune not only to these individuals, but to the City, that no guiding hand pointed out their proper location, in accord with a general scheme for the whole extent of the Mall, in the lack of which separate and unrelated plantings have been dotted in it; these plantings having in each case their main axis crossing that of the Mall.

"We are in favor of the location of public buildings on the south side of Pennsylvania avenue, which is a part of the plan as recommended by the Park Commission. We deplore the fact that this Commission has not the legal standing to which its plans and its membership entitle it, and we regret that this primal recognition has not been given.

"To us, however, the dominating need is that the laying out of the roadways, parks, etc., and the location of the public buildings, statues, etc., shall be made in accordance with a coherent and complete plan; coherent in that it shall provide for the proper and seemly relations of the parts, one to the other; complete in that it shall provide for all of the various needs present or anticipated for the Capital city of a nation, promising the future that we look forward to for our own.

"This city is fortunate in having been born by such a plan, which has been reviewed by a commission composed of men whose qualifications cannot be successfully challenged,

FIG. 7. FRAGMENT OF FRIEZE, "THE RING OF YOUTH"—MR. F. S. FLOWER'S RESIDENCE.

612 Fifth Avenue, New York. Chas. F. Naegele, Artist.

and they have recommended its readoption. No other plan similarly considered has been presented.

"Therefore, resolved, That the Washington Chapter of the American Institute of Architects endorses most heartily the wisdom of the Park Commission in adhering to the original plan of L'Enfant as endorsed by Washington and Jefferson, and in extending its principles in their plans for the greater Washington.

"That this chapter considers the vista treatment of the Mall, as contemplated by them, a return to first principles, and by far the most logical, effective and monumental treatment yet suggested, and that a strict adherence to their plans will give to the American people the possibilities for the most beautiful capital in the world.

"We affirm that, proceeding under a fixed plan, the amount of expenditure involved is less than would be required in proceeding as has been the custom, without co-ordination of the units or the co-operation of those controlling them.

"We are confident that the necessity for the adoption of a comprehensive plan will be generally recognized, and would call attion to the fact that when adopted, the first step towards its fulfillment shall be the planting of trees in their allotted places, for while roadways and buildings may be constructed as needed, trees are the planting of one generation for the enjoyment of their successors.

"Resolved, That this expression of our views be sent to the Honorable Secretary of War as the representative of the Government on the Grant Memorial Commission in charge of the work of its erection."

SKYSCRAPING UP TO DATE

The year 1907, though it failed to equal its predecessor in the number or cost of new buildings constructed, marks the breaking through of another stratum of ether by the forty-odd-story skyscraper. One might almost say two new atmospheric strata have been penetrated as we pass from the four-hundred-foot monster, without transition, to one of over six hundred feet in height. To complete the picture there is missing only the air-ship to "honk-honk" them aside, but this deficiency of our imagination can readily supply to the accompaniment of the pneumatic riveting machine which is heard on high in piercing warning.

As cities have developed, their skyline has been broken at first by the devout with the spires of their churches, and later by the ambitious of commerce. To this development has been added another stage, for now we possess genuine tower architecture as an advertising feature on a rental basis. Whenever we have completed an extensive structure we have endeavored to force it a little beyond and above in order to distinguish it among the mass of its fellows, hence the Madison Square Garden and Chicago Auditorium Towers, both distinctive parts of their respective structures. But now we get to a

point where the tower is practically the whole thing. The modest heights of the Singer and Metropolitan Life Buildings lost their identity in the mass of other similarly modest structures, but their development skyward will be difficult to surpass, for to rival it on the lower end of Manhattan Island would necessitate the tearing down of many costly buildings. But it is unsafe to prognosticate, in view of recent wrecking operations in that territory.

In many cases the lofty buildings are protected and isolated by their own surrounding property, but already in the case of the Singer Building the growth of the huge City Investing Company's Building has amalgamated itself with it, and as the white trimmings of the Singer Tower accords fairly well with that of its aspiring neighbor, the composite architecture is not without attraction, especially when viewed from a North River ferryboat. In fact, for appearance sake, the architect of the Investing Building might have dispensed with a broken skyline for the Singer Tower supplies this gratis for all time.

The growth of a great city skyward may be unattractive to those who see no inspiration in the new problems which it involves, or unreasonable to those who disapprove of it for economic reasons, but when one beholds these dark grey monsters at dusk, studded with a myriad of incandescent lights, the effect is one of mystery and might, which is strictly of this generation.

MECHANICAL PROBLEMS OF THE SIX-HUNDRED FOOT BUILDING

The advent of the six hundred foot building has called into being an important readjustment of the mechanical transit problem for skyscrapers. The result is a new type of elevator called "the traction," with power machinery located above the shaft instead in its accustomed place in the cellar. To create ample safety devices for the cars of such a system, is a serious problem. The possible precipitation of a carload of passengers from a six-hundred-foot height is not a pleasant theme for contemplation. It is only fair to say, however, that the number of passengers carried in them daily is not large, and it may consequently be asserted that contractors supplying such installations are of the highest reliability.

Another development which has been brought about in building construction by the very tall building is a scientific treatment of foundations. The prosecution of this branch of building construction now proceeds from a corps of specialists with adequate equipment to execute as well as design foundations to support the most gigantic superstructures. Fortunately rock bottom is not beyond human reach on Manhattan Island and the stability of the building is biblically assured. And if our present development continues we shall have to go still higher to gratify our ambitions, outreaching the Tower of Babel, but without its disastrous consequences.

NEW YORK'S PARK OPPORTUNITY

As the park development idea grows in the minds of the American people, it would be well to realize that within a short radius of the heart of busy New York there lies a region wild and romantic of unsurpassed possibility of use. This region occupies the top of the Palisades running north from Fort Lee and reaching to a point opposite Irvington, a distance of nearly fifteen miles. Its protection from the invasion of the suburbanite it owes to its inaccessibility, though it is already becoming in its southern portion a growing collection of domiciles. In all the cities visited by the writer, there has appeared to him no such possibility as the top of this famous cliff overlooking an equally renowned river. The neighborhoods of Boston, Chicago, Philadelphia, Baltimore, St. Louis, Detroit boast, each in its way, of a series of reservations, beautified alike by Nature and the hand of man; but in those cities there is no such place or possibility like this. For miles there stretches this hill, a cliff washed by the Hudson on the east, with a slope over a beautiful country to westward. At the southern end a road runs up a long hill from Fort Lee, then northward. For a good distance this road is in good condition, and there are many cliff-top dwellers along its way, and even a little hamlet where some prominent in the art-world have availed themselves of this natural opportunity; but compared with the number of city folk who will some day be forced out by the growth of trade and land values, these are but a handful. As the tract lies in two states, which for some time have been co-operating in acquiring land for park purposes, it would seem wise if a national acquirement of ownership could be consummated. Of course, the Niagara reservation is all that New York could demand, but as the bulk of the territory lies in New Jersey, and as there is practically no surrounding population in that state to

create a "local feeling," a government ownership would seem wise.

The view is especially fine from the upper portion at a point about opposite Hastings, where a jutting polygonical column of rock allows an unobstructed view up and down the river. Here five hundred feet above the surface of the water, one can look entirely over the country opposite and across the Long Island Sound to the ridge running along Long Island. A prominent architect of skyscrapers once visiting this place said that he was more impressed with the sense of height here than he was at the top of the Eifel Tower in Paris, and attributed this to the absence of artificial barriers, for here one is able to look down the sheer rise of rock to the tree tops below. A trolley line along its ridge would make this region visitable and permit a remarkable view of the lower Hudson, far superior to that obtained in the course of a ride upon the river itself. The winter view is very beautiful when the snow-clad country lies stretched in its white raiment with the ice-bound river as its border. At the northern terminus of the cliff is the widening of the river known as the Tappan Zee, dear to the heart of Washington Irving, and here ends one of the most remarkable trips that any city in this country can permit its denizens to enjoy, for such a wilderness and outlook combined is a strange result of inaccessibility to the daily commuter.

PROPER DESIGN FOR SUBURBS

A summer number of the North American Review contained a little article on "Design as Applied to Cities." In its somewhat brief compass it was necessarily general; but a portion of it may be summarized for the sake of the final suggestion: "The fact is that the underlying principle of structural beauty in the ground-plan of a city must rest on utility. The root of it all is as old as the primitive town, or *tun*, of the progenitors of the English people in their German birthplace. Dwellings were built around a tree or a hill which was used as the town meeting-place, the whole being surrounded by a common or neutral ground and ditch, which was to become later the wall, and, when that was razed, the boulevard, as in Paris, in Vienna, and other old towns of Europe." That is to say, the authors explain, the thing which is desirable in the ground-plan of a city is that "simple element of design which forms centers, with streets radiating from them, and fits them in all cases to irregularities of the ground. By these means that variety which comes of fitness is invited on the part of the architect, who has now little enough of inspiration and finds it difficult to be rid of monotony where there are nothing but interminable straight streets, with few places from which a building may be seen from a distance." Whatever may be thought of present conditions, architects certainly would be glad to be given sites more favorable to effectiveness, and the following suggestions give immediate practicalness to this wish: "There is no reason why the extension of towns, now being forced by rapid transit, should not be along streets ordered with reference to the natural features of the ground; why they should not be made sightly in the character of their houses, as well as sanitary and comfortable; why parks should not be provided, street trees planted and properly cared for, as well as private gardens, large or small, as the case may be. That these things should be effected by comprehensively and artistically devised plans, to be made as soon as practicable, is of the utmost importance, as will be admitted when it is recalled that no end of depressing ugliness and incalculable expense has resulted in the past from lack of such enlightened forethought. . . . . Now, when people living thirty miles away from their business are about as near it, so far as time is concerned, as they were a few years ago when five miles away, there is no economy in crowding them into narrow and ill-ventilated streets, and it is obviously to the interest of property-owners to insist that their values shall not be depressed because somebody, a dozen or a hundred years ago, devised a plan that officials are not willing to change. That the proper ordering of streets in places not built up is, next to rapid transit itself, the most pressing need in present urban conditions cannot be questioned, and the fact that such ordering is to the present and future interest of everyone concerned—and everyone is concerned—should be kept in view, or much of the benefit of rapid transit will for the present be lost."

CHARLES RIVER PROGRESS IN BOSTON

Now that the Charles River improvement in Boston is rapidly taking shape, and one stage after another of the great undertaking is completed, and with accomplishment there come new plans of greater splendor, it is interesting and not a little encouraging to recall the improvement's history. The embankment was one of the earliest, if not

indeed the first, feature proposed for the new park system a generation ago. But the scheme has been very slow in realization. Though "the Charlesbank" with its playgrounds was followed by the improvements on the Cambridge shore, and this by the metropolitan park improvements, and now the latter by the dam and causeway with its locks, yet even today the broad, parklike drive along the Boston side of the river is only a dream. Still the conservative houses of Beacon street turn haughty backs on the *nouveau* river plan. But curiously enough, a main source of the opposition to elaborate improvement lies in a condition precisely the reverse of that which appears. The residents in the Beacon street houses have learned to love the water view and in turning their backs to it they are really taking the position of frightened mothers protecting the offspring who hide behind their skirts. Dining room, library, and my lady's chamber are at the back of many a house that stands with hypercritical front to Beacon street; and the late opposition to a broadening and embellishing of the drive is based, not on the indifference of the householders, but on their great concern lest something may be done to shut off their water view. Yet little by little the improvement marches on; little by little "the Beacon street folk" have yielded their points, and though there is no disposition to do them injustice, and it would not be like New England to make so radical an improvement suddenly and quickly, still the work is progressing. The earliest suggested park feature promises still to be the last accomplished, but when done to be the most architectural, most splendid, and individual of all.

EXHIBITS OF LOCAL CITY WORK

A suggestion — originally made, we believe, by Comptroller Metz of New York, and occasionally commented upon and added to since by various persons—deserves to be pushed along. It is that municipalities would do well to conduct, as a sort of bureau of information for their citizens, a small permanent exhibition that should be up to date in its exhibit of current municipal undertakings. It is pointed out that the expense need amount to very little, as it could be appropriately housed in a room of the city hall or would be sufficiently instructive to be given space in the public library. Such an exhibit would consist largely of photographs and drawings —the latter mainly architectural, such as plans for new schools and fire and police department buildings, bridges, etc. The photographs would have mainly to do with work under construction, and if these were regularly taken at intervals of a month they would offer to the taxpayers interesting evidence of the degree of progress in city work. Short descriptions should accompany the exhibits and the whole, if accessible, would be not only of much interest and instruction to the citizens affected—but to strangers desirous of knowing what a city is doing, and of valuable suggestiveness to officials, professional men, contractors and builders from other cities. The exhibit would not only tend to keep the citizen in more intimate touch with his city, but it would probably increase his public spirit and pride in it and tend to make him more amenable to appeals for money. "Municipal Journal" discussing the matter, imagines the case of the city waterworks. "It seems probable," the paper says, "that if the average citizen could have placed attractively before him photographs, say, of a filtration plant, the pumps which raise the water and the reservoir into which it is discharged, with the cost of constructing and operating these, the figures setting forth briefly the relation between such costs and the consumption, he would then be more impressed by the appeals of the water department for less waste of water, realizing that he does not create water simply by opening a faucet as a magician plucks money from the air, but that expenditures of fuel, labor, and enormous construction costs were necessary to bring the water to the faucet. A photograph of a nearly empty impounding reservoir, in a dry season, might be more impressive than any newspaper notice cautioning care in the use of water."

MURAL PAINTINGS AND BAD BOYS

Very interesting work, from both the artistic and sociological point of view, is the mural decoration which is going into the Juvenile Court at Chicago. Krehbiel has in hand the decoration for the court room itself. Allen C. Philbrick is responsible for the panels that form a deep frieze around the waiting room, the more advanced condition of his work making possible an appreciation of his scheme. There are no allegories of crime and justice and punishment, that would probably fail of significance to the tremblingly waiting lads. On the contrary the first panel shows boys playing baseball in a field, with other youngsters having lunch under a tree—their kind teacher present, by way of showing that they have not skipped school. The second panel shows a regiment marching through an afternoon city street with

the crowd cheering. The significance is not quite as clear. Perhaps it pictures the joys that wait upon soldierly obedience. A third panel shows a summer evening on the Lake Shore esplanade at Chicago, and a description says, "Purple twilight, moonlit waters, the sweet curves of the shore, repeated in the broad steps of the paved beach, make as fine a setting as any of Alma-Tadema's classic terraces," and the "groups of lightly clad mothers and children, or dimly seen lovers" might belong, one percieves, to more romantic times and places than to Chicago in 1907. But that is one of the triumphs of art—to show us the romance around us. The panels are twelve feet long by four or five high and a blue strip illustrating Lake Michigan makes a continuous back-ground uniting them all. The color scheme graduates from the noontide brilliancy of the ball field to the afternoon light of the street parade and so "to the nocturnes in violets, blue and white." The whole conception seems to be a happy one, naturally appealing to the boys in its subjects, cheerful in the thoughts to which it gives rise, wholesome in the state of mind it creates and the aspirations which it stimulates. It subtly expresses the purpose for which a juvenile court exists, and it is well to find in the decoration of a structure the spirit of the institution for which it is raised. When that spirit is artistically expressed in strictly American symbolism we have a native art.

GLEANED FROM PARK REPORTS

In the recent reports issued by municipal park boards an interestingly significant statement now and then appears and reappears. One may glibly say that it isn't true, and is never likely to be; but it is made by authority, and by men who have studied and thoroughly know the local situation. It is that the park system is complete, or practically so. For instance, the report of the Cambridge commissioners to the city council for the year 1900, said, "Cambridge needs no further park extensions, other than a park development of the Fresh Pond section"; and the superintendent of the Minneapolis parks, reporting to his commissioners, is quoted as declaring the Minneapolis park system "as complete as it can be made," needing only some further development of the beauty and usefulness of the present tracts. Neither Cambridge nor Minneapolis is standing still in population. They are good types—one East, one West; one comparatively large, the other relatively small. They are both cities in which, through a term of years, the park policy has been progressive, generous and foresighted. Neither one would consider its system complete if it were adequate only for the city of today; in both the park ideal is high. The statements therefore are significant as showing that there really is an attainable end to the park rainbow; that it is not only conceivable but actually true that at last, without bankruptcy or inconvenience, a city richly blessed by nature with park possibilities may acquire all the appropriate park sites that are needed to give to it a well rounded system adequate to the many and varied demands, local and general, made nowadays on the parks. The event is a notable development in American park history, a milestone in our municipal progress. There are some other items of interest in the park reports. In Wilkes-Barre it has been estimated that the local deposits under the park are sufficient to purchase and beautifully develop a new park of much larger dimensions. In Cambridge the Washington elm is reported, after expert examination, to be in excellent condition; and the disfiguring iron bands have been removed, inch rods with nuts and washers serving now to keep the limbs from spreading.

INTERNATIONAL HOUSING CONGRESS

In the discussions that marked the eighth International Housing Congress, held in London in the summer, there was a good deal which was of interest to architects. The full reports of the Congress have only recently been coming to this country, with returning delegates and in special publications, for the proceedings were not fully reported in the press. A point which much engaged the attention of the Congress was better inspection. The president referred to this in his address as one of the matters on which all the delegates were agreed. In defining the requirement he said, "Systematic and complete inspection of dwellings independent of local and monetary interests, as opposed to those of the public health, and careful registration of each dwelling, giving the size, rent, number of rooms, light and air space, and providing a minimum cubic air space per room are essential to the maintenance of decent housing conditions. The renovation or destruction of unhealthy areas or slums is necessary in many places." On the latter point, he stated that during the last forty years English municipalities have "built 20,506 dwellings, with 56,949 rooms, at an expenditure not exceeding the cost of two modern battleships, £6,000,000 having been expended by the authorities in slum

buying and £4,000,000 in building new dwellings." Two of the national housing inspectors of the Dutch government told of the supervision exercised in that country under the law of 1901. This requires the central government to supervise not only the building of new houses, and the alteration, rebuilding and maintenance of houses, but also the degree of crowding. They announced that under this law upwards of 800 houses had been condemned. Furthermore "town extension plans have to be approved by the Central Public Health Service, under whose authority the inspectors operate, for all towns with a population of over 10,000 or whose population increases very rapidly—unless exempted by special provision." The Secretary of the Congress, who is also Secretary of the National Housing Committee of England, suggested three possible lines of action to do away with the "slum cottage," which, he thought, is only a little better than the slum barracks. These proceedings are: (1) The raising of the minimum required in the by-laws that prescribe the width of roads and space at the rear of a dwelling. (2) The adoption of the German method of town planning. (3) The granting to town and district councils of the power to prescribe the maximum number of houses per acre to be built on land in certain zones under their administration. An object of this is to provide gardens. The general tone of all the discussion is said to have been very elevated, intelligent and reasonable; and the work of the Congress appears to be of a character which should especially appeal to those architects interested in humanitarian work.

ENCYCLOPEDIA OF ARCHITECTURE, CARPENTRY AND BUILDING

A handsomely manufactured work in ten volumes, half morocco, is the new Encyclopedia of Architecture, Carpentry and Building just published by the American School of Correspondence of Chicago. The word encyclopedia is, indeed, expressive of these books, which embrace the various and complex subjects involved in designing and constructing buildings. Their matter is equally suitable for student or master, being intended, however, chiefly for the "man on the job." The thoroughly practical nature of the matter presented is due largely to the incorporation in the work of the best papers by pupils of the School.

The idea of an American encyclopedia of Architecture and Building Construction is not, of course, original in the case of the work before us, but the new features which the American Correspondence School Encyclopedia introduces, make it a very welcome addition to the only works through which it is possible to spread a greater amount of popular knowledge on the science and art of the architect and the building constructor. Its influence is potent to instill a knowledge of the fundamental principles of good design and to foster an appreciation of all that is admirable in architecture. The books, which are of some three hundred odd pages each, are profusely and attractively illustrated, and this feature in itself makes them an improvement on similar encyclopedias which we have seen. If the illustrations are sometimes not as well chosen as they should be, or inserted to add cheer to a particularly dry part of the subject, one feels, at least, that the effect which has been obtained, justifies the means. These illustrations, many of which are half-tone reproductions of contemporary American domestic and commercial architecture, are, in themselves, a very interesting and representative series in which some of the best recent suburban houses of the West find a place.

The purely mechanical subjects of structure and equipment are treated in great detail. There are chapters on the heating, ventilating, plumbing, electrical, hardware, plastering and painting trades; and carpentry, masonry, structural steel and reinforced concrete constructions, also receive ample space with numerous practical problems.

An instructive and valuable bibliography prefaces each of the ten volumes.

A NEW SYSTEM OF ARCHITECTURAL COMPOSITION

It is pleasant in these days of the rechauffé in literature, when, outside the full flow of fiction, books are mostly fact-records, scientific, biographical or otherwise, to encounter such a work as that of Mr. John Beverley Robinson, which he calls A New System of Architectural Composition. Whatever may be the merits or demerits in the execution of this book, the conception as a whole is original. Architectural works are limited in their scope to either the purely historical or the purely mechanical. Volumes we have innumerable, cataloguing and describing the buildings of this, that and the other period or country, monographs on church, stable or house, all filled with the concrete facts, views of buildings from a utilitarian, picturesque, or historical point of view; and, on the other hand, there are treatises on the engineering

of architecture, treatises which confine themselves to the strength of materials, the construction of trussed roofs and other mechanical problems. The few books that have been written upon the esthetic side of building have been confined almost entirely to the criticism of individual buildings.

But in Mr. Robinson's book we have something quite new, a systematizing of principles that have been known to architects and used by them from time immemorial. These principles of design he classifies in the shape of formulae for the reference and guidance of the designer who, unaided, might go astray in their application to his daily work. Each rule or principle that he lays down seems incontrovertible, and to express well the accepted ideas of the best designers. Especially interesting is the chapter on Similarity, in which it is shown how important an element of beauty in an architectural design is the similarity of its component parts, as of a round dome with rounded arches, or of a bulbous dome with arches of reflex curvature.

But by far the most daring thing that the book attempts is the classification of all buildings into half a score of types. Here the author himself seems hardly aware of his audacity, for the whole matter is disposed of in a page of type, with no attempt at excusing or explaining such an unparalleled flight—of fancy—we had almost said, were it not that the fancy in this case expresses the facts so well that we are forced to admit to ourselves the validity of the classification. A like brevity and straightforwardness characterizes the work throughout, the most sweeping statements of general esthetic truths being laid down with the utmost nonchalance, as if they were as much matters of course as the self-evident axioms of geometry; as indeed they seem when the author states them for us. This extreme conciseness of statement is both a disadvantage and an advantage—a disadvantage in that the interest which it arouses demands a fuller treatment of detail for its gratification, an advantage because the unsated intelligence forthwith sets out upon a tour of original thought, adducing further examples to support or contradict the views expressed.

Another happy generalization is embodied in the chapter on Proportion, in which the author's views are not wholly novel, but explain and render practical matters which have hiterto lain in the dark.

It is to be regretted that the book is not more adequately illustrated. The cuts have been reduced, evidently from motives of economy, to a minimum, often too much to illustrate clearly the points explained in the text. The title, too, is somewhat of a misnomer. A New System of Architectural Composition gives an impression that the work is intended to introduce a new style of design, whereas nothing is farther from the facts; a New System of Teaching Architectural Composition or Rules for Architectural Composition, would better have conveyed the book's scope. The illustrations are taken from all styles and periods, with no idea in the author's mind of originating a new style. And it is this catholicity of taste and fairness of judgment which is especially to be commended.

NOTA BENE.

Not desiring to remain indefinitely at the foot of the geography class, to which the "Globe," New York, recently relegated the Architectural Record, we would say that we have again consulted our atlas and found that Lake Geneva really is in Wisconsin and not in Illinois, as it was printed under some illustrations of Mr. Howard Shaw's recent work in the December issue.

Mr. Lewis H. Bacon informs us that he was not the architect of Mr. J. W. Mitchell's house at Manchester, Mass., which we published in the November issue. We desire herewith to correct the error and give credit to its author, Mr. Willard M. Bacon.

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SEGESTA, TEMPLE (SICILY) IN UNFINISHED STATE, SHOWING UNCUT DRUMS.

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Greek Architects

Greek architecture is very close to us: yet Greek architects seem remote and shadowy, in strong contrast with our ideas about Greek sculptors. We vividly associate Phidias with the Parthenon sculptures, Polyclitus with his well-poised athletes, Praxiteles, with his "Faun" and "Hermes," and to each man we attribute a distinct style. But how many of us can say that the Athenian Propylaea evoked the name, far less the style, of Mnescicles; the Parthenon that of Ictinus; the Mausoleum of Halicarnassus that of Pythius? Only a few specialists know that the authorship of many more of the greatest works of Greek architecture is an ascertained fact: we know who built such theatres as those at Syracuse and Epidaurus, such temples as those of Samos, Ephesus, Delphi, Olympia, Delos, Argos, Phigalea, Tegea, Eleusis, Priene.

These great names should be on the list of those whom the world delights to honor. But, you may object, of what use is it to know their names unless we can go further and learn something of their personality and style; how they solved the architectural problems of their day and what relation these problems bear to those of our own day; what their education and social condition were; whether they were interested in theory as well as practice; whether and how they made architectural drawings and models; made estimates and drew up specifications and contracts; what were their relations to their clients, public and private, to the contractors and builders, and to the workmen. Connected with these are the less personal questions of building laws, the methods of construction, the materials, implements and instruments in use in Greek lands.

It is by no means impossible to answer most of these questions, with the help of Greek literature and inscriptions; and the lack of any attempt to do it has led to the present article, which aims at giving to American architects as intimate a view as possible of their Greek confreres both as men and as artists.

THE SEVEN GREAT ARCHITECTS.

The Greeks themselves had a clear conception of the personality and prominence of their architects. In the Alexandrian age—shortly before the Christian era—when everything famous went in groups of seven, there were seven greatest Greek architects in the opinion of the day, as reported by Varro, as well as seven wonders of the world. These seven were selected from all of Greek history and were: Daedalus, Chersiphron, Ictinus, Menecrates, Philon, Archimedes and Dinocrates. Of these we are familiar with all but one from other historic sources. Daedalus represents the mythical, oriental stage of the hero-architect, the primitve Pelasgic style of immense irregular stone masonry with decoration in colored stucco or fresco, as well as in metal. His supposed masterpiece, the palace of Minos in Crete, so famous under the name of the Labyrinth, has now been excavated in all its sumptuousness as the most magnificent proof of the advanced civilization of the Greeks before the Trojan war (c. 2000 B. C.).

The second on the list, Chersiphron,

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built (vi. cent. B. C.) the national temple of the Ionian Greeks, Diana of Ephesus, with contributions from all the Greek cities of Asia Minor. This is the greatest if not the earliest example of the archaic Ionic style, when wood and terra cotta were being abandoned for stone, and entirely new canons of proportion and decoration were invented. His work was probably epoch-making.

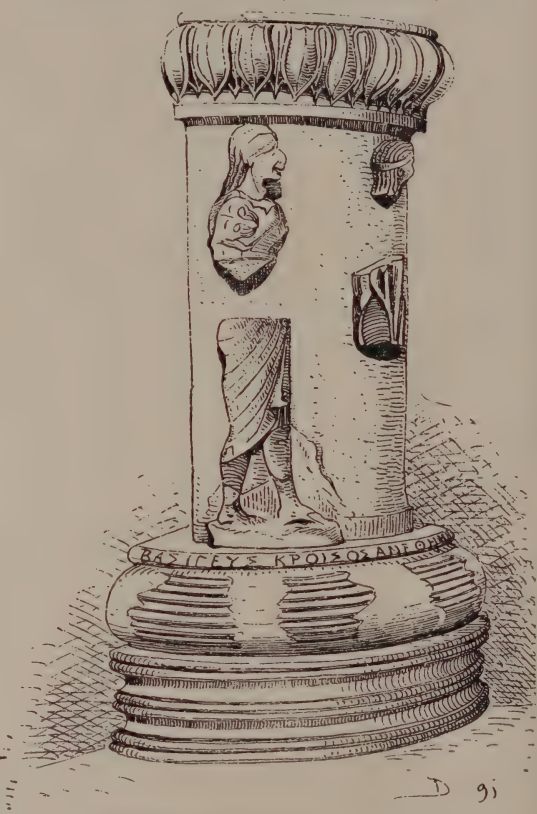
EPHESUS, TEMPLE OF DIANA.

Fourth Century B. C., Design of Paeonius for carved lower drum of columns.

There is no corresponding architect on this list to be the standard-bearer of early Doric, as we see it in Sicily and South Italy, but the next name is that of Ictinus, with his masterpieces, the Parthenon and the temples of Eleusis and Phigalea. He typifies the perfection of Attic Doric and the highest achievements of the next era, that of Pericles (middle v. cent.).

Of the fourth, Menecrates, we know nothing, but Philon, fifth on the list, was the leader of the Attic School in the Praxitelean Age, in both religious and civil architecture, building the great Arsenal, completing the temple of Eleusis and building its portico. He was the apostle of the new practical utilitarianism which heralded the union between architecture and engineering, so characteristic of the last centuries of Greek art.

The sixth architect, Dinocrates, was



EPHESUS, TEMPLE OF DIANA.

Fragments of Sixth Century B. C. Design of Chersiphron (?) for Carved Lower Drums of Columns.

the favorite of Alexander the Great, and the builder of Alexandria. His magnificent plans for city construction on a level formed the basis of most succeeding work on a large scale, such as was shown in the founding of the great city of Antioch under the Seleucid Kings. He seems to have developed the earlier ideas of Hippodamos in planning a well-balanced and monumental city, with wide and regular streets, and with public

buildings at the right intervals and sites. Finally, in Archimedes, the seventh, we have the highest product of the mechanical and mathematical genius in architecture as distinct from the æsthetic, a peculiarity of Greek art just before the Roman conquest, when engineering became so prominent a factor. The recent discovery of one of his lost works in Constantinople is now explaining his genius to us.

These seven men, therefore, selected by the Greeks themselves, represent the main periods and phases of Greek architecture from the beginning to the age of Augustus. A number of others might be added, who were of equal prominence. Such men were better known and more highly esteemed than the contemporary sculptors and painters, if we except a few men of the decadence, like Zeuxis and Apelles. This high position is granted to them clearly for three reasons. The education of an architect was necessarily more thorough and varied than that of a sculptor or painter, as we shall see. Then, in the economy of the Greek states, the architect took an important and necessary part, directing the work of other artists. And, most important of all, the sculptors and painters worked with their own hands and so lost caste, while the architect, planning, but not doing any manual labor, stood on a higher social level. He was a gentleman, practicing a liberal art: they were mere mercenary craftsmen.

VITRUVIUS ON AN ARCHITECT'S EDUCATION.

The Greek idea of the science of architecture and of the knowledge required of an architect is best given by Vitruvius in his *Handbook of Architecture,* written early in the reign of Augustus, but largely copied from earlier Greek authors, both in ideas and material.

"Architecture," he says, "is a science compounded of a variety of disciplinary studies and many kinds of information, by means of which all the works of art produced by the other arts can be judged. It is acquired by *practice* and *theory*. . . . . The architects who have tried to reach perfection merely by the work of their hands without the aid of letters, have been unable to obtain recognition for their work; and on the other hand those who have relied entirely on literary discussions and labors have had the reputation of pursuing a shadow rather than the reality. . . . No one should therefore pretend to be an architect who has not made himself proficient in both theory and practice. . . . He should have literary attainments in order to aid his memory by copious notes. He should be a skillful *draughtsman,* so that he may portray graphically the work to be executed: versed in *geometry,* which is so great a help to architecture, for example in teaching the use of the circle, level and square, and in expressing the norms and directions of lines; also acquainted with *optics,* so as to obtain proper effects of light in different sides of his buildings; a good *arithmetician,* so as to calculate exactly the cost of buildings, work out the ratios of measurements and difficult questions of symmetry by the methods of geometry. He must also be acquainted with *history,* in order to be able to give a satisfactory explanation, for instance, of the decorative work so often used in buildings. . . . A tincture of *philosophic* study is necessary to keep him from meanness or covetousness, and to give him a love of good faithful work, dignity of bearing and a care for his good fame. He must have studied *physics* on account of the numerous questions he is called upon to decide, for example, in connection with aqueducts. *Musical* knowledge is necessary . . . as in the case of the acoustics of theatres, where bronze vases must be placed under the seats according to certain mathematical rules, so as to concentrate and give out musical sounds according to harmonic law. . . . *Medicine* will teach the peculiarities of the different climates, the healthy or unhealthy qualities of air and location, and the use of water. A good acquaintance with *law* is necessary to decide questions of party-walls, roof-outline, sewage, lighting and drainage and all other questions that must be settled by the architect before beginning a building, lest after the work is done, he leave food for lawsuits to the owner and lest he be a prey

to lawyers, lessees or contractors. . . . Even *astrology* is useful for a knowledge of the points of the compass . . . of equinox and solstice and astral movements."

Such a variety of requirements, Vitruvius adds, while it involves a broad, liberal education before one can begin to specialize, implies a knowledge merely of the principles of these branches except in their application to architecture. "An architect," he says, "must have the *theory* of all these branches; the *practice* only of his own."

PROFESSIONAL AND SOCIAL STANDING.

This picture may seem overdrawn and an unrealizable ideal, but Greek sources supply evidence to show that it is fairly representative of the profession at its best. In fact, Vitruvius in his late day has lost sight of many characteristics of the finer training of the Greek golden age, in the sciences of perspective, optics and proportions. An architect of this type can hardly have been a common product, but one of the fine flowers of Greek culture. Plato himself mentions the profession as open to the citizens of his ideal state to whom he forbids the occupations of the artisan and the tradesman. To express in dollars and cents the different value set upon his services as compared to those of the artisan there comes a Platonic dialogue, which contrasts the value of masons, who were worth only five or six *mines* (= 500 or 600 drachmas = c. $100 to $120), with that of architects, who, as slaves, were worth about twenty times as much (10,000 drachmas = c. $2,000), "for," he adds, "architects are scarce throughout Greece." On the other hand, the accounts of certain national sanctuaries show that architects sometimes received hardly more than day laborers, and that for these men of minor importance there was a sliding scale of wages varing from two to four drachmas per day (c. 40 to 80 cents), for long engagements.

There were, in fact, many sorts. Some practiced independently and were either themselves always on the move, or sent about drawings, models and specifications. Others occupied salaried positions and belonged to the class of officials. They were either permanently attached to great sanctuaries, such as Delphi, Olympia or Eleusis, where there was nearly always something to be done in the way of construction or repair; or they received special appointment as supervising architects for a given job, such as the building of a theatre, temple or harbor. Finally there were the slaves, in the service of the state or of wealthy individuals, who often hired them out.

Quite naturally the independent architects had the higher position and emoluments. The superintending architects at Athens were paid as little as $6.50 per *prytany,* doubtless because the work took only part of their time. On the other hand a very honorable position was that of city architect, quite common in the period just before and after Alexander, when a single architect or sometimes three were given complete charge of the repairs and new structures throughout the city.

Another point. "It is extremely probable," says a French writer, "that the Greek cities, when preparing for anything so important,—religiously, politically, and commercially,—as the foundation of their colonies, added a number of architects to the secular and religious leaders of the expedition." Plato's description of his ideal city in twelve quarters (as at Thurium) and with carefully located public buildings, makes this almost certain. The three cities laid out by Hippodamus, the planning of Alexandria by Dinocrates, of Priene by Pythius, and of Antioch by Xenaeus—all but the first during the age of Alexander —are instances of the power given to a single architect. Earlier still we hear of a group of architects called from Paestum in Campania, where they had presumably been building one or more of the temples we still admire, to build the city of Velia, which was made one of the most beautiful Greek cities of South Italy.

Strabo in his travels attributed the order and beauty of public buildings in certain cities to the administration of all such matters by city architects. Speaking of Rhodes, he says: "As at Massalia and Cyzicus, so here particularly everything relating to architects . . . is ad-

ministered with extreme care." Of Cyzicus, he says: "There are three architects to whom is entrusted the care of the public edifices and engines."

Perhaps an anecdote about Dinocrates will illustrate the high position often reached. This architect set out from Macedonia to join Alexander's army, hoping to gain the royal favor. He came provided with letters of introduction to men of rank about the King's person, but, though they received him kindly, and made him many promises, they put off presenting him to the King until, tired of waiting, Dinocrates took the matter into his own hands. He was tall, of agreeable countenance and dignified appearance. Relying on these natural advantages he put off his ordinary clothing, anointed himself with oil, crowned himself with a poplar wreath, slung a lion's skin over his left shoulder, and carrying a heavy club, sallied forth to the royal tribunal at an hour when he knew Alexander was dispensing justice. His sensational appearance as a Hercules drew such a crowd that Alexander's attention was attracted and he ordered the "freak" to be brought before him.

"Who are you," he inquired.

"A Macedonian architect," replied Dinocrates, "ready to suggest schemes and designs worthy of your royal renown. I propose to shape Mt. Athos into a statue of a man holding a spacious statue in his left hand, and in his right a huge vase, into which shall be collected all the streams of the mountain, which will thence pour into the sea." Alexander's fancy was tickled at the picture, and though the wild scheme was never attempted, it accomplished its purpose, for Alexander kept Dinocrates, made him his favorite architect and decorator until the time of his death, giving him the general direction of the planning and building of Alexandria, by which future architecture was so strongly influenced.

MILETUS, CAPITAL OF TEMPLE OF APOLLO: DESIGN OF PAEONIUS.

TRAINING.

How did the Greek architect obtain his education? We will suppose that he has had what corresponds to the undergraduate course in our colleges and has mastered what Vitruvius calls the principles of the subjects required for preparatory work, which was, substantially, the education of a typical young Greek gentleman of the intellectual type. At the same time it often happened that the profession was selected for him and that he began specializing at a much earlier age. Plato in his *Laws* (BK. I) recommends a sort of kindergarten method to fathers who intend their boys to become architects, advising that they be supplied with miniature tools and set to building children's houses. There are numerous cases of boys educated by their fathers in the same profession.

There appear not to have been any

public art schools or academies, where the various branches were taught simultaneously: nor were there any publicly-salaried teachers. The technical teaching was neither collective nor public. The student frequented famous independent teachers who were at the head of large ateliers or offices, or had private courses: studied physics with a Democritus, perspective with an Anaxagoras, proportions with a Nexaris, mechanics with an Archimedes. Theodorus of Samos, when he was called to Sparta to build the temple of Athens, as early as the VI. cent. B.C., opened a school of architecture in Sparta. The custom of famous architects to embody in monographs or text-books their special theories and information, and the illustration of their masterpieces, assisted in the work of teaching. The system of apprenticeship was common in the architectural as well as in the other trades and arts among the Greeks. But it never took the form of organized labor. There were no guilds or unions with the three classes of masters, journeymen and apprentices that became the rule since Roman times.

MILETUS, BASE OF COLUMN OF TEMPLE OF APOLLO: DESIGN OF PAEONIUS.

ARCHITECTURAL LITERATURE AND CITY PLANS.

Evidently a library was part of the preliminary equipment, for Socrates says, in one of the dialogues: "In what employment do you intend to excel, O Euthedemus, that you collect so many books? Is it architecture? For this art you will find no little knowledge necessary!" Sometimes the literary and theoretical element was developed to excess. A striking example of this was Hippodamus of Miletus, who lived at Athens in the brilliant period of the fifth century. He was an influential sophist and litterateur, famous for his purely disinterested labors in city affairs. Apparently disgusted by the irregular and squalid streets of Athens and other Greek cities as contrasted with the superb public structures that had been rising under Pericles and his contemporaries, like oases in slums, he conceived a scheme for laying out cities throughout Hellas, a scheme which was, for its day, quite comparable to Nero's for the reconstruction of Rome, Baron Haussmann's for that of Paris, or the present *piano regolatore* for Rome,

though it could not fully be carried out except in newly-founded cities. A free hand was given him to lay out the Piraeus, where some of his scheme has come to light, and his reputation throughout Greek lands became such that he was asked to draw up the plans for the new cities of Rhodes and Thurium.

Regularity of plan, with streets diverging from the market-place; a division into twelve quarters, with geometric accuracy, and at the same time a due regard for orientations and the breaking of prevalent winds by street angles, were some of the characteristics of Hippodamus' scheme, and of its imitations in later Greek times. While suited to level sites it was a comparative failure when applied to those built, like Priene, in Asia Minor, on steep mountain slopes, or about a hill, for it made little allowance for natural configuration and required elaborate terraces and cuts. It was the architecture of the pedant. Evidently the popularity of Hippodamus was enormously increased by literary propaganda and he probably required the assistance of a large office force of practical architects.

In the next century, also at Athens, we find a brilliant and far better-balanced union of literary and artistic talent, in Philon of Eleusis, an accomplished orator and writer, but, unlike Hippodamus, primarily a practical architect and engineer. His fame rests on the construction of the great arsenal at the Piraeus and of the colonnade of the sanctuary at Eleusis. Valerius Maximus says of him: "Athens is proud of its arsenal and well it may be, for it is admirable. Philon, its architect, gave an account of his work in full theatre, and the most cultured audience in the world applauded him as much for his eloquence as for his architectural genius."

All trace of this arsenal was supposed to be lost, but the original specifications by Philon have recently been recovered, drawn up with amazingly minute attention to detail.

ARCHITECTS' MONOGRAPHS.

Such monographs as this address by Philon, referred to by Valerius Maximus, were commonly written and circulated by prominent architects whenever they produced a work in which their architectural ideas were consummately embodied. At a very early date (VI. cent.) Theodorus of Samos wrote on the famous temple of Hera at Samos, the rival of the temple of Ephesus, which he had built with Rhoecus; and Chersiphron wrote, in collaboration with his son, Metagenes, a treatise on their temple of Diana at Ephesus. The influence of these, the two greatest temples of their day, must have been immeasurably increased by these monographs.

Although not one of them has been preserved, it is evident from hints and extracts that these descriptions had both a theoretical and a practical part. The architect explained the theories and norms which he has sought to embody, as well as any peculiarities or novelties of execution. Chersiphron, for example, detailed his new mechanical devices for transporting heavy columns and epistyle blocks from the quarry to the works, and his method for hoisting them into position. As this architect was one of the leaders in the movement to substitute stone for wood and terra cotta in temple construction, he was evidently obliged to face some of the problems that had arisen in consequence, assisted, possibly, by knowledge of Egyptian methods.

LITERARY AESTHETIC POLEMICS.

Later architects, especially those of the fourth century B. C., living at a time when practical difficulties had been already long since overcome, laid more stress in their writings upon norms of proportion, novelties of plan, discussions of style, and questions of refinement connected with the mathematico-optical studies that played so important a role in developed Greek architecture since early in the fifth century. Schools and parties developed and discussion ran high. War raged between the Doric and the Ionic camps. Philon and Silenus defended Doric against the increasing Ionic inroads. Argelius, Pythius and Hermogenes, prominent Ionic partisans, attempted to prove that the Doric order was totally unsuited to temple architecture.

Meanwhile, less controversial and

more descriptive monographs had been quite frequent. Ictinus, with the co-operation of Carpio, had described the Parthenon, and this should be sufficient to silence those who would attribute any of its architectural beauties to Phidias. Pythius, who built in the Alexandrian age the mausoleum of Halicarnassus and the city of Priene, wrote on both subjects. In his monograph on the temple of Athens at Priene, the most exquisite Ionic temple after the Erechtheion, he probably gave his reasons for omitting the frieze both here and in the other Prienian temples, an omission so puzzling to the modern architects who have studied the magnificent ruins of Priene.

In the same way most important novelties appear to have been ventilated in literary form either by their inventors or their pupils. For instance, Argelius wrote on the new Corinthian order, so finely embodied in the temple of Athena Alea at Tegea, by Scopas. Hermogenes, a great architectural reformer shortly before Alexander, supported in his writings his two most important innovations, namely: (1) the *pseudo-dipteral* arrangement of temples, by which he secured more space around the cella, and, (2) the *eustyle* proportions in which the inter-columniations were 2¼ diameters in place of the too-close systyle (2 diam.) or the too-wide diastyle (3 diam.) types.

This statement of Vitruvius has been verified by the German excavations at the temple of Artemis at Magnesia on the Maeander built by Hermogenes. It was actually found to be a pseudo-dipteros, and a refinement unnoted by Vitruvius was that the two central columns on each façade were spaced wider than the rest.

TRAVEL.

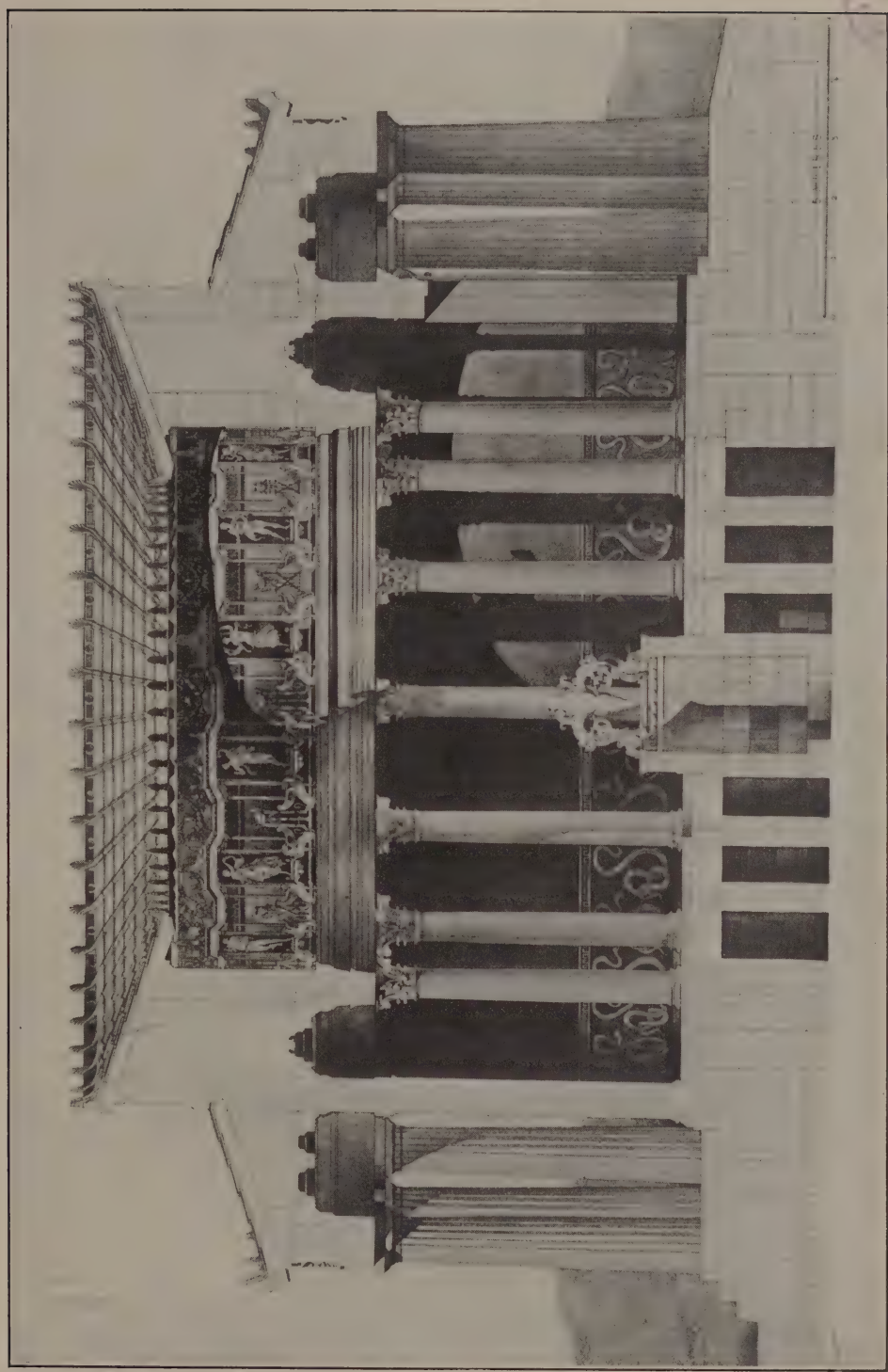
The importance of this ability of Greek architects to express their ideas in literary form can hardly be exaggerated and is probably responsible for the rapid and wide spread of certain general ideas and forms, through the multiplication of manuscripts and drawings and the enthusiasm of pupils returning to different parts of the Hellenic world from the school of the master. One result was the frequent calling of these master architects to distant regions. Nothing is more striking than the broad geographical radius covered by some of them. In the sixth century B. C. the island of Samos supplied architects not only to King Croesus of Lydia, then at the head of an empire in Asia Minor, but also to the other great Oriental power, Persia, as well as to the Ionian cities and to Greece proper. Its leading artists at that time were Rhoecus, Theodorus and Mandrocles.

This Theodorus, for instance, was called to Sparta to build the Hall of Public Assembly and to open a school of architecture. There was an interchange, for Eupalinus, the best engineer of his day, was called from Megara to Samos to build the earliest known canal-aqueduct, so much admired by Herodotus. The islands at this time were still the teachers of the mainland. For example, Chersiphron went from Crete to Ephesus to build the temple of Diana, and Byzes from Naxos to Delphi to help build the temple of Apollo. This constant flow between Asia Minor, the islands, and Greece proper continued in the following period. A wholesale migration was that of 220 B. C., when King Ptolemy Philopator sent a hundred architects and sculptors to rebuild the city of Rhodes, which had been partly destroyed by an earthquake.

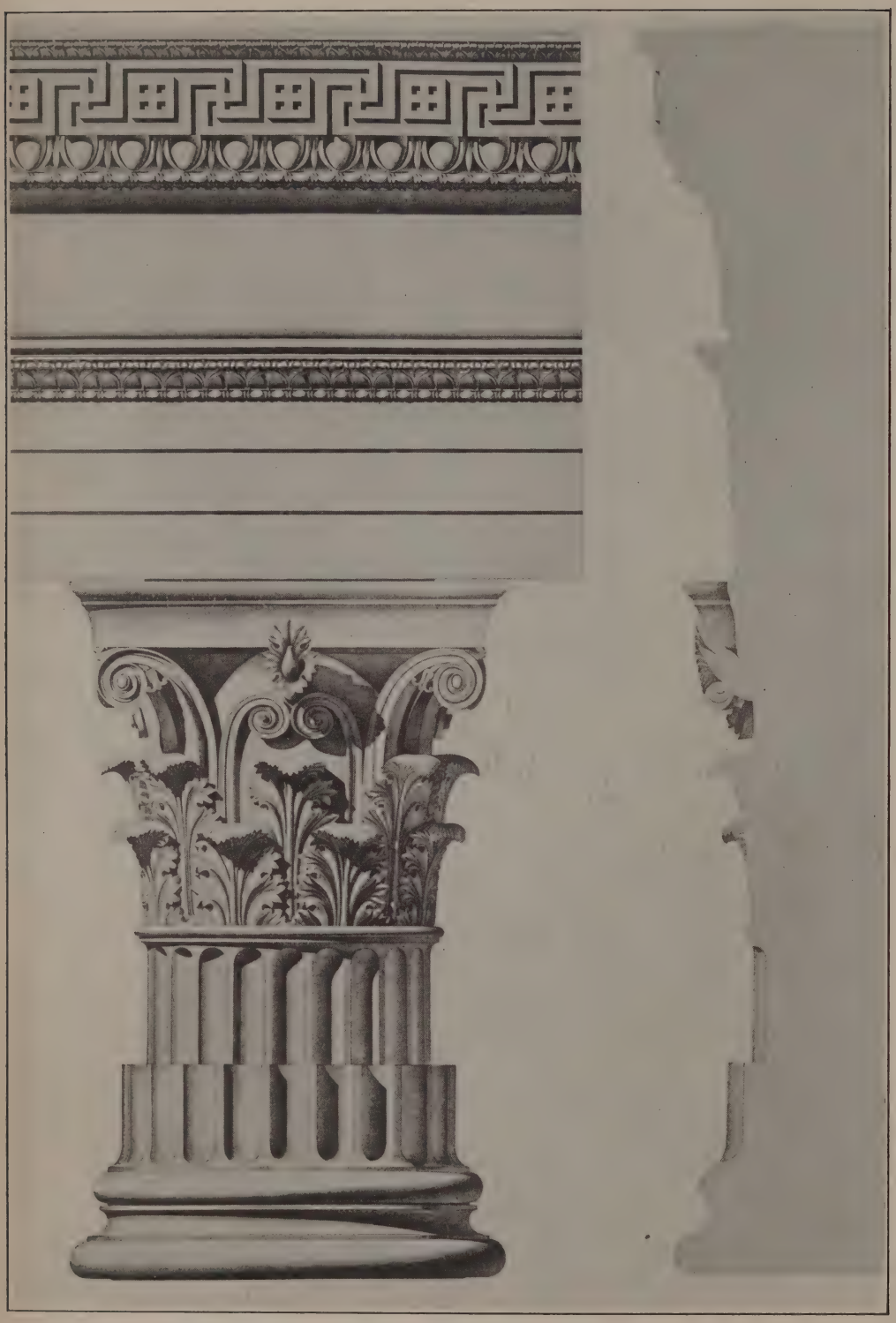
ARTISTIC VERSATILITY.

There is no doubt that, especially before the fourth century, these leading architects were responsible not only for the construction but in great part also for the selection and arrangement of the internal and external decoration of a building, whether painted or carved. Modern writers have often doubted that Ictinus had any share in determining the decorative scheme of the Parthenon. But Vitruvius cites the Caryatidae of the Erechtheion as examples of such decoration, the meaning and origin of which the architect must be able to explain.

There were fairly numerous cases, in fact, where the architect did not merely plan the temple sculptures, but seems to have designed them. Polyclitus, who



EPIDAUROS, SHRINE OR THOLOS OF ASCULAPIUS (RESTORED) BY POLYCLITUS THE YOUNGER, ARCHITECT AND SCULPTOR (360-350 B. C.)
(From Defrasse et Lechat, Epidaure.)



EPIDAUROS, ORDER OF THE THOLOS, BY POLYCLITUS.

built the most perfect of theatres at Epidaurus, and Scopas, author of the most symmetrical temple in the Pelopennesus, that of Athena Alea at Tegea, were even more famous as sculptors than as architects. Many others practiced both arts: Theodorus of Samos, Bupalos of Chios, Gitiadas of Sparta, and Callimachus, the supposed inventor of the Corinthian capital. When the versatility of the artists of the Middle Ages and the Early Renaissance is remembered, there is nothing remarkable in this many-sidedness of the Greeks.

CITY ARCHITECTS AND CONTRACTORS.

The next question to be answered is, how did architects, so educated and with this public position, go about to do their work? How were they engaged and paid? Under what conditions did they work?

The first important point is that there was no hard and fast line drawn between architects, contractors and builders. The term "architect," which in Greek means literally *chief artisan, head artist,* was elastic, and made to include whoever had general charge of the work of different kinds on a building, whether he drew up his own plans, or superintended the carrying out of another artist's plans. It is probable that the young architect was usually satisfied with the position of clerk of the works, under the chief architect, or of contractor and builder of some section of a structure, for it was seldom that the work was given out to a single contractor.

Of course, when there were several contractors it would be impossible to attribute the design to any of them. And as this is true in most cases it follows that the architect who designed a great building in Greece was *hardly ever* also the contractor for it. This kept the dignity of the profession higher.

Conditions varied so radically in different parts of the Greek world, and at different periods, that no general statement would apply. I can only give examples of the different methods.

The states where the architect was given the greatest freedom as well as the heaviest responsibility were the cities of Asia Minor and elsewhere, in which, as I have already said, the care of building was placed entirely in charge of one or more city architects. What this involved and how it was sometimes regulated is shown by what Vitruvius calls an ancient law of the city of Ephesus, "that when an architect was charged with the erection of a public building he was asked to calculate the cost, and having handed in his estimate to the magistrate, his property was held as security until the work was completed. Then, if the cost tallied with the estimate, the architect was recompensed by public decrees and honors. If, however, the cost exceeded the estimates by not over 25 per cent., this amount was taken from the public funds, without imposing any penalty on the architect (neither was there any expression of public gratitude). But if the excess of expenditure should be over 25 per cent. that amount was taken from the architect's own property." "Would to God," says Vitruvius, "that we Romans had such a law!"

The sums involved in such public works were often considerable, notwithstanding the low price of labor and the fact that the materials were supplied free by the state. The cost of the Propylaea at Athens was set at 2,012 talents, or about $2,500,000, and it was completed in five years, according to Heliodorus. The handling of this money was not left to the architect in charge, but usually to a finance committee. In the case of a building of moderate cost and plain style, like the Arsenal of the Piraeus, the cost was surprisingly small, only about $12,000 being set aside for it each year on the city budget, over a period of less than fifteen years.

METHODS OF PAYMENT AND WORK.

The Greeks had three methods in the erection of buildings: (1) contract work; (2) piece work, and (3) day labor. It is not always possible to distinguish between the first and the second of these methods because contracts were often so sub-divided as to come under the category of piece-work.

In work done by day-labor, each workman received his orders and his pay directly from the state or corporation. This was the favorite early method, during the sixth and fifth centuries, for buildings that required careful and artistic execution, for in this case individual workmen could be carefully selected and made responsible for the perfection of their work.

Contract work, which was first introduced for the commoner grade of construction, such as city walls, invaded the higher spheres of architecture during the fourth century, in ever increasing proportions, but even to the end it did not entirely drive out the earlier method.

So far as we know contractors did not intervene in the building of the Parthenon, and all payments were made directly to individual artisans. It was the same at the Erechtheion except for the encaustic work, which was done by special contract. Later, in the fourth century B. C., about two-thirds of the work was by piece-work or day-labor and one-third by contract.

PUBLIC CONTRACTS.

We know nothing of *private* contracts and of the relations of architects to private clients, because such contracts were drawn up on destructible materials and have not survived; probably some will come to light among Egyptian papyri, which have already given several of Roman date. But all *public* contracts after having been so drafted and signed were inscribed on slabs and set up in a public place; and a number of these have been recovered, giving every detail of this part of Greek public law. This permanent and public form was necessary owing to the strict accounting required of the official put in charge of such work by the people and the danger of accusation of fraud in handling the public money. The trial of Pericles for purloining some of the gold supplied for the ivory and gold statue of Athena is merely one of the indications of this need of public knowledge of all the details of such transactions. By the side of these inscribed contracts was always a second series of inscribed documents, namely the detail-

EPIDAUROS, CAPITAL OF THE THOLOS, BY POLYCLITUS.

ed itemized accounts, year by year, of the finance committee, which included the above building expenses.

Building contracts in their complete form usually consisted of four sections: (1) the popular decree or *fiat* ordering the work; (2) the specifications; (3) the legal clauses that were to govern the work; (4) the text of the contract to be signed. I shall take up each of these four sections in turn and interweave the story of the various stages preceding the actual commencement of work. After that I shall describe the operation of building in its various phases.

Building Decree and Finance Committee.—First, as to the decision to build. In democratic states, such as Athens, Phocis and Locris, this was done by direct decree of the whole people; in democratic or aristocratic states, such as Sparta, by order of the magistrates; in tyrannies by the oligarth; in the case of the large national sanctuaries, such as Olympia and Delphi, by their governing corporations,—for example, by the Amphictyonic Council at Delphi.

We are, of course, more familiar with the method by popular decree, as here the details were made a matter of public record. When the decree was passed, appropriating the funds and ordering the work, it included a clause appointing a committee of superintendence, whose members are diversely called *epistates, naopoioi* or *epimeletai.* This Committee to be renewable each year and responsible directly to the people for the financing of the enterprise. An architect was also chosen by popular vote either as a member or an adjunct of this committee to be responsible to it and to the people for the technical perfection of the building.

The committee and its architect, following the instructions of the decree, now drew up the specifications, form of contract and estimate of cost. This document was submitted to the popular assembly and voted, as a supplement to the previous decree, and was then made public, both by placards on the public monuments of the city itself and of other cities and by the announcement of heralds in the market place. A date is named for the handing in of bids, which must be made in person.

Competitive Bidding.—There was no attempt made to limit the bidding to local contractors. In fact every inducement was offered that might attract the competition of foreigners; except at Athens, where only natives were allowed to compete. Foreign contractors were given special privileges: their traveling expenses were sometimes paid; they were allowed to sue the adjudicator of bids for fraudulent decisions; they were exempted from all taxes and from the right of seizure for debt.

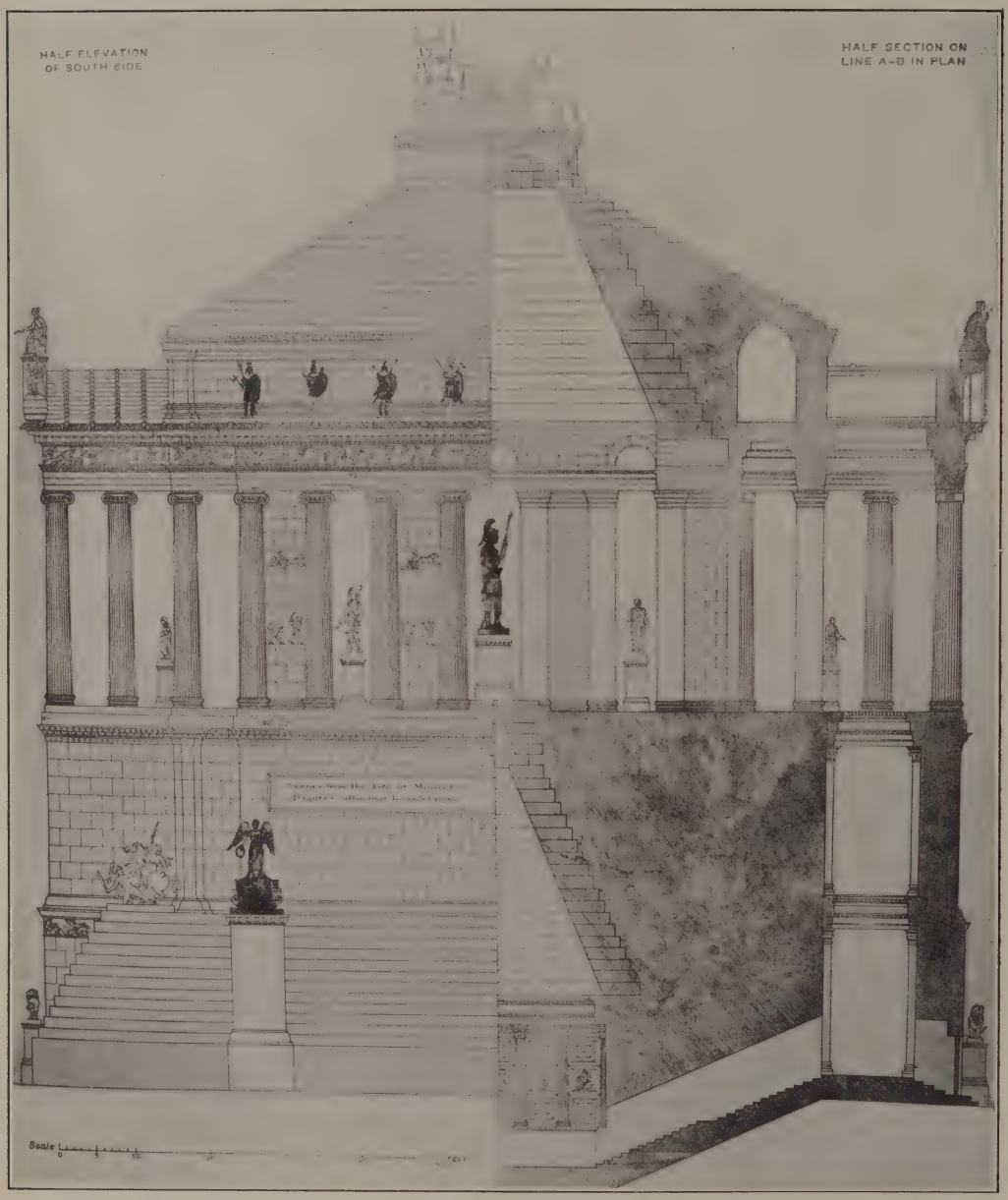
Assigning Contract.—The bidding took place in the presence of the local magistrates and of the committee in charge; and the whole work, or each section of it that was put up separately, was awarded to the lowest bidder, taking into account not merely pecuniary, but other considerations, such as the period of time set for the completion, or offers to take a lease of the building for a term of years in lieu of cash payment.

Precautions were taken to guard the interests of the state, especially against the pooling of contractors' interests or attempts at monopoly. Contractors were often not allowed to have partners, or at most a single partner. In other cases no contractor was allowed to undertake more than one job.

Were Contractors Architects?—The *status* of the contractors must now be understood. Were they usually qualified architects or not, as well as builders? There appears to have been no absolute rule. Although, as we shall see, building contracts were sometimes assumed by amateurs, either as a form of generosity to the public or as a speculation, the great majority of contractors seem to have been architects of minor repute as well as practical builders. Some should even be classified among the best architects, as was Callicrates, who contracted for the building of the entire Long Wall of Athens; as was also Ictinus's practical partner in the construction of the Parthenon.

In the later rebuilding of the Athenian walls, when as many as ten different contractors are put on the job, they

are called "architects" in the original specifications. Sometimes when two or more men are associated in a contract it is possible that, as in the present day, the business end is attended to by one, the artistic end by the other. This seems to have been the case with the famous Arsenal at the Piraeus, already referred to. It is well known that Philon alone was responsible for the plan and received all the credit, and yet the inscription giving the contract begins: "Specifications for the Stone Arsenal for marine stores of Euthydomos, son of Demetrius of Melite, and Philon, son of Exekestes of Eleusis." This Euthydomos was either

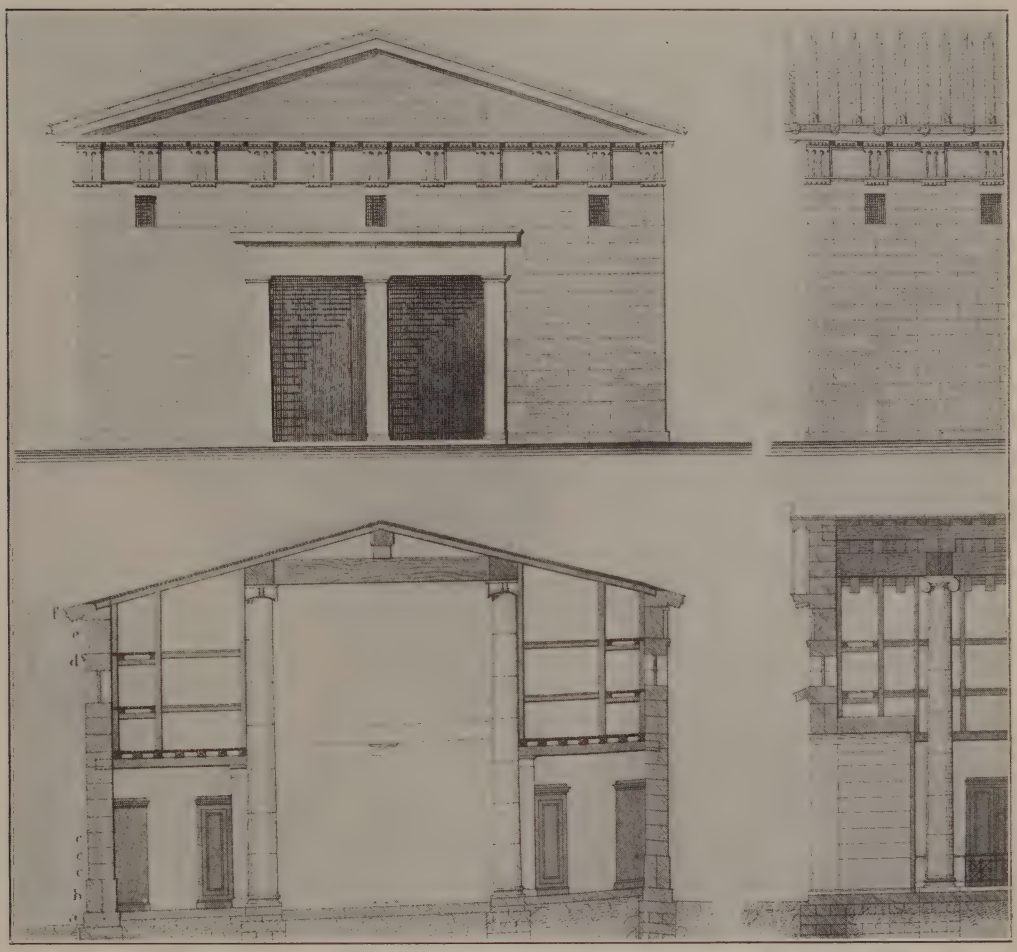


HALICARNASSUS, MAUSOLEUM, DESIGNED BY PYTHIUS AND SATYROS (IV. CENT. B. C.)
(Restoration by Oldfield, Archaeologia, LIV.)

the business contractor or a moneyed associate.

SPECIFICATIONS, THE PIRAEUS ARSENAL.—The next point to consider is the specifications. A model of its kind is that of the Piraeus Arsenal. I shall give a translation of part of it.

"An Arsenal shall be built in Zeia for naval tackle, beginning near the Propylaeum, which leads from the market place. The length shall be four plethra (400 ft.). the breadth 50 ft. or 55 ft., including the walls. The ground of the site shall be cut down 3 ft. where it is highest and levelled off in the other parts. On this area the course masonry of the foundations shall be laid to an even height, the whole being dressed by the level. The foundations shall be extended so as to support the columns, to a distance of 15 ft. from the walls. There shall be 35 columns in each row, which shall be arranged so as to leave a passage for people through the centre of the Arsenal. The width of this (aisle) between the (two rows of) columns shall be 20 ft. The thickness of the foundation shall be 21 ft., and the stones shall be laid in headers and stretchers. The walls and columns shall be of stone of Akte (*i. e.*, Piræus limestone). A directing-course shall be laid for the walls 3 ft. broad and 1½ thick, each stone of which shall be 4 ft. long, except the corner stones,



ARSENAL OF PHILO AT THE PIRAEUS (PORT OF ATHENS).
(Restored from Philo's specifications (IV. Cent. B. C.) by Dörpfeld (Athen Mittheil. VIII.)

which shall measure 4¾ ft. Over the centre of this directing-course shall be laid an upright course of blocks 4 ft. long, 2½ ft. and one digit wide and 3 ft. high. The length of the corner blocks shall correspond with the measure of the triglyphs.

"Two doorways shall be left open, at either end of the Arsenal, each 9 ft. wide. Each shall be divided in the centre by a pier 2 ft. wide and 10 ft. deep, and the door jambs shall be carried back as far as the first columns.

"Above the upright course, (*i. e.*, the base) the walls shall be built of blocks 4 ft. long and 2½ ft. thick. The corner blocks shall correspond with the proportions of the triglyphs, and the height of the blocks shall be 7½ ft.

"The height of the walls above the upright course shall be 27 ft., including the triglyph (—frieze) under the cornice. The height of the doorways shall be 15½ ft. The lintels shall be of Pentelic marble, 12 ft. long, two courses in height and of the same thickness as the walls. The doorposts shall be of Pentelic or Hymettic marble, and the sills of Hymettic marble. Over the lintels there shall be a cornice projecting 1½ ft.

"There shall be windows all around, in every wall, opposite each intercolumniation, and at each end three. They shall be 3 ft. high and 2 ft. wide. Each window shall have a close-fitting bronze shutter.

"Upon the wall there shall be a cornice all around, and (at each end) a pediment surmounted by a pediment-cornice.

"The columns shall be set upon a stylobate on the same level as the directing course (of the walls). The thickness of this stylobate shall be 1½ ft., its width 3 ft., and the length of each block 4 ft. The lower diameter of each column shall be 2¾ ft., and their height, including capitals, 30 ft. Each column shall have seven drums, 4 ft. high, except the lowest, which shall measure 5 ft. The capitals of the columns shall be of Pentelic marble. The epistyle shall be of wood, and shall be fastened upon the columns. It shall be 2½ ft. wide and not more than 2¼ ft. high, and the number of epistyle beams on either side shall be eighteen. Cross beams shall be placed upon the columns across the middle passage, of the same thickness and height. Rafters shall be set up 1¾ ft. broad and 1¼ ft. and two digits high. . . . Under each a kingpost 3 ft. long and 1½ ft. thick shall rest on the cross-beams, to which the rafters shall be braced by ties.

"Upon (the rafters) shall be placed long timbers 10 digits thick, 3 palms and 3 digits wide and 1¼ ft. apart. Upon these shall be placed (cross-wise) covering planks a half ft. wide, 2 digits thick and 4 digits apart. Upon these (planks) shall be placed strips (to support the tiles) 1 digit thick and 6 wide, which shall be fastened with iron nails.

"This (roof frame) shall be covered with a (preservative) coat and shall then be tiled with Corinthian tiles fitted closely together.

"That there may be ventilation in the Arsenal, when the courses of the walls are laid (spaces) shall be left open at the joints of the blocks wherever the architect shall direct.

"All these things shall be carried out by the contractors in accordance with the specifications, following out the measurements and the models which the architect shall provide; and they shall deliver each detail of the work within the time to which they shall have agreed in the contract."

The units of measurement here mentioned are 4 digits = 1 palm; 4 palms = 1 foot; 1 foot = 0,308 met. These specifications do not mention the decorations or details of capitals, cornices, frieze, etc., nor the number and dimensions of the triglyphs, which we know, from the inventories, to have been painted. This part of the work was probably covered by another and later specification different from the constructor's specification, and possibly this part of the work was done not by contract at all, but by day's work, as at the Erechtheion, under the architect's daily direction. As we shall see, all details, whether in relief or in color, were executed *in situ* after the construction was completed, in all Greek structures.

A. L. Frothingham.

(To be continued.)

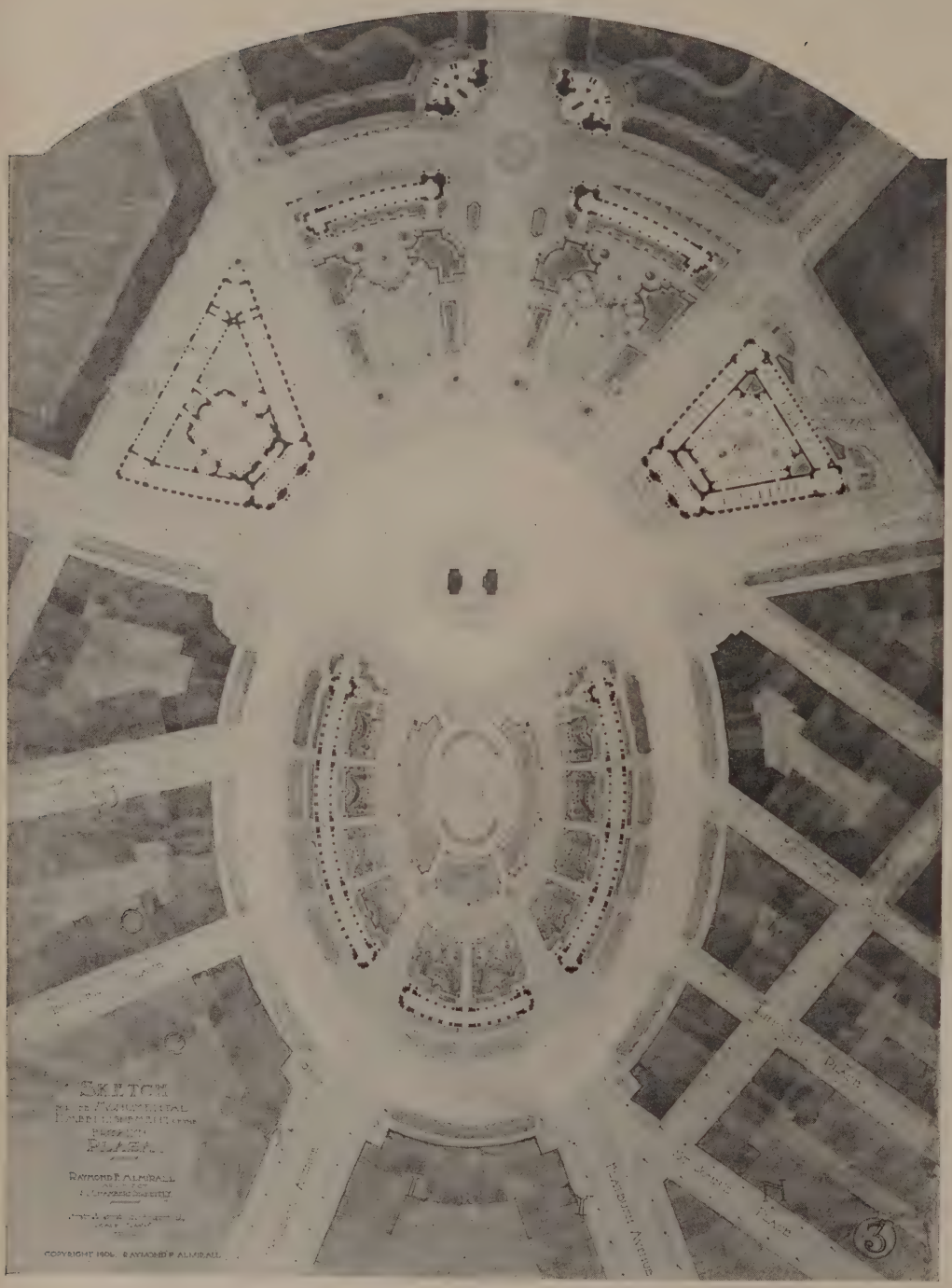
BIRD'S EYE VIEW OF BROOKLYN PLAZA AS PROJECTED.
Raymond F. Almirall, Architect.

The Brooklyn Plaza and the Projected Brooklyn Central Library

THE PLAZA.

The dedication of the recently completed portion of the Brooklyn Institute of Arts and Sciences calls attention to a section of Greater New York which holds promise of being one of the most impressive and important points of the metropolis. It must be recalled that in the fall of 1895, under the administration of Charles A. Schieren, then Mayor of the City of Brooklyn, ground was broken for the Institute, and that on December 14 of the same year the Mayor laid its cornerstone. Now, after a lapse of more than a decade, another section of the extensive design of Messrs. McKim, Mead & White has been completed, largely through the public spirit and interest of the citizens of Brooklyn, for the city has contributed generously of its money for the realization of the project. The Brooklyn Institute occupies a prominent position on the Eastern Parkway, one of the city's finest thoroughfares, near its intersection with the Plaza marking the entrance to Prospect Park, which has recently received some noteworthy architectural embellishments under the programme of the Park Department. The Eastern Parkway is, in fact, the most important thoroughfare in the Prospect Park region, and leads to the Plaza at opposite sides of the Memorial Arch. The recent acquisition by the city of a site for the new Central Library on the Plaza, between the Parkway and Flatbush avenue, extending back to the continuation of Underhill avenue between these thoroughfares, has suggested to Mr. Raymond F. Almirall, who was selected to submit a design for this building, the larger problem of the appropriate architectural treatment of the whole Plaza to make of it a monumental area, and to provide for placing on its perimeter buildings which will permanently assure its character.

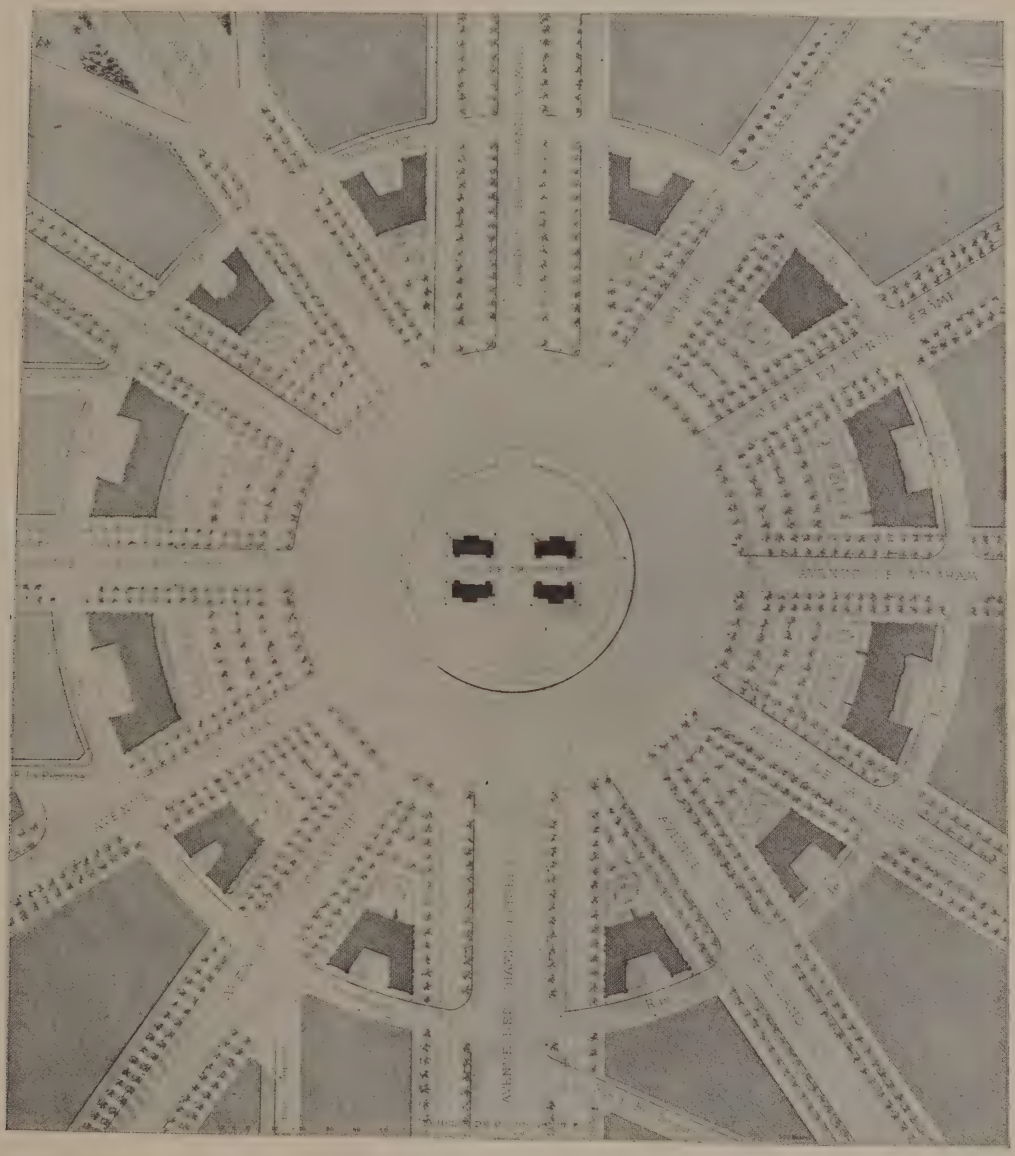
The architect has, accordingly, provided for such a project, the drawings which we illustrate herewith. It would be interesting, for purposes of comparison, to have before one a bird's-eye view of the present condition of the Brook-



PLAN OF BROOKLYN PLAZA, SHOWING SUGGESTED IMPROVEMENTS.

Brooklyn, New York City. Raymond F. Almirall, Architect.

lyn Plaza; but perhaps such a view would be a discouragement as well as a help, for, while it would reveal possibilities of improvement, it would also show how this centre of exceptional natural beauty has been neglected and slighted, and that in its immediate vicinity may be found the most inappropriate architectural environment. To a student of civic aesthetics, the surroundings would present no greater obstacles to improvement than actually exist; but to the citizen who is merely a passerby, the possibilities would appear largely as lost opportunities, and would, in consequence, tend to decrease his interest in the undertaking. While the chances are large for improving the Plaza from a practical, as well as from an artistic point of view, we are compelled to make our admissions by saying that certain fundamental difficulties or infelici-



PLAN OF THE PLACE DE L'ETOILE, PARIS.

ties are involved in the problem. Chief among these is the position of the arch, which presents the extraordinary spectacle of serving as the monumental entrance to Prospect Park, without being such, either in practice or in appearance. If it is contended that the arch is not artistically intended as the entrance to the Park, its position is equally awkward. Its orientation placing it almost on the axis of the Park drive presupposes that it leads from something before the Park. Such would seem the logical reason for choosing for a warrior's monument the arch as more suited to express its purpose than a column or an obelisk. But no street or avenue extends through the arch; on the contrary, the vista is closed at present, and must remain so in any modifications of topography that could readily be made. Clearly, the arch is an impediment to the harmonious architectural treatment of the Plaza. It must be accepted and made the most of by decreasing its importance. It must be acknowledged, therefore, that the Plaza possesses no artistic centre, and can never hope to be as effective, for instance, as the Place de l'Etoile in Paris, which has such a centre and of which we reproduce a drawing. There is, however, another fundamental difference between these two plazas. In the Paris *place* the arch is the whole thing, proclaiming its colossal proportions in contrast to the low extensive mansions disposed around the circumference of its circle. In the Brooklyn Plaza the arch will be of secondary importance, being exceeded in scale by the projected library mentioned above, and by its suggested counterpart—the Zoological Museum. Besides the buildings which would, in the event of improvement, be erected on the remainder of the curve would more than likely further detract, by their size, from the arch's importance. Thus in time its discordant effect would become less and less as its relative importance decreases.

NEARER PERSPECTIVE VIEW FROM THE FLATBUSH AVENUE SIDE, SHOWING THE EFFECT OF THE BUILDING WHEN THE DOME IS INVISIBLE.

Another fundamental difficulty with the Brooklyn Plaza, both in its present state and as Mr. Almirall remodels it, is the lack of very ample means of caring for the large traffic that must ultimately centre at this point. The road which winds around the curve of the Plaza is very little wider (except in front of the arch) than some of the avenues which run into it. Most of the area of the Plaza is given up to pedestrian ways and architectural embellishments in connection with the central feature—the electric fountain. No doubt this arrangement provides a very attractive feature for the public, but in view of the proximity of Prospect Park

DISTANT VIEW FROM THE PLAZA, BROOKLYN CENTRAL LIBRARY.

Raymond F. Almirall, Architect.

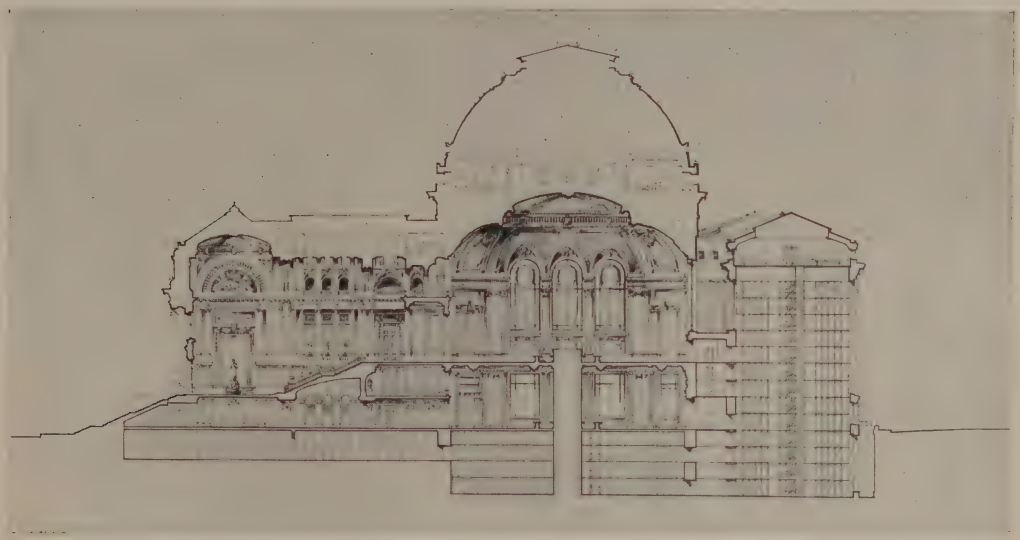
Brooklyn, New York City.

VIEW OF THE GREAT ENTRANCE VESTIBULE ON THE FIRST FLOOR, LOOKING TOWARDS THE GRAND STAIRCASE. BROOKLYN CENTRAL LIBRARY.

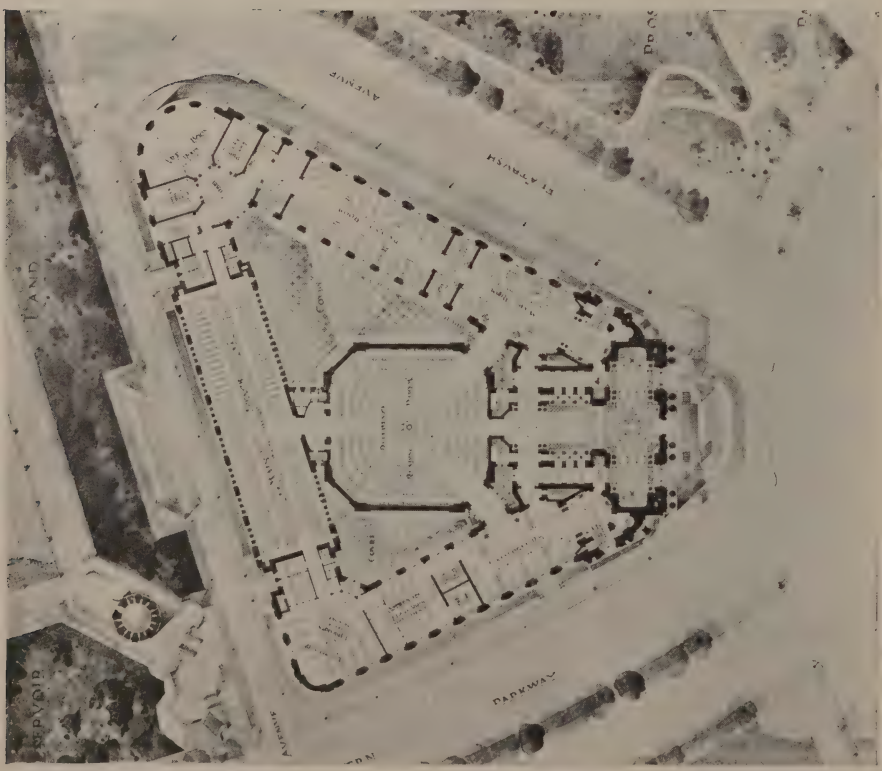
Brooklyn, New York City. Raymond F. Almirall, Architect.

it would seem unwise if it interferes at all with the proper handling of the traffic, to provide for which should be a leading consideration. The reader should note how the traffic problem has been solved in the Place de l'Etoile, referred to above. The roadway of the *place* has been made considerably wider than any of the avenues which intersect it, and the area in the centre has been reduced until it is only just large enough to be a sufficient aesthetic base for the arch itself. The remainder of the area has been disposed around the outside of the roadway, so that great crowds may comfortably circulate around and obtain an excellent view of the arch and everything that is going on in the circle. This arrangement of the promenade on the outside of the road, instead of on the inside, has the added merit of providing for the buildings around the circle a magnificent setting. It must be admitted, however, that as there are no car lines running around the Place de l'Etoile its traffic problem is simpler of solution than that in Brooklyn, especially in providing reasonably distinct lines of communication for pedestrians, cars and vehicles. In the Brooklyn Plaza these lines of communication often cross, and on that account it would seem a questionable act to close to vehicular traffic the direct entrance between the arch and the Park, as shown in Mr. Almirall's plan. Carriages from and to the Park would have either to make their way in a roundabout manner or they would be compelled to cross the car lines at points where congestion would ultimately be bound to occur. Pedestrians to and from the park would likewise be compelled to cross carriage and car traffic at its busiest point, or else take a more indirect course.

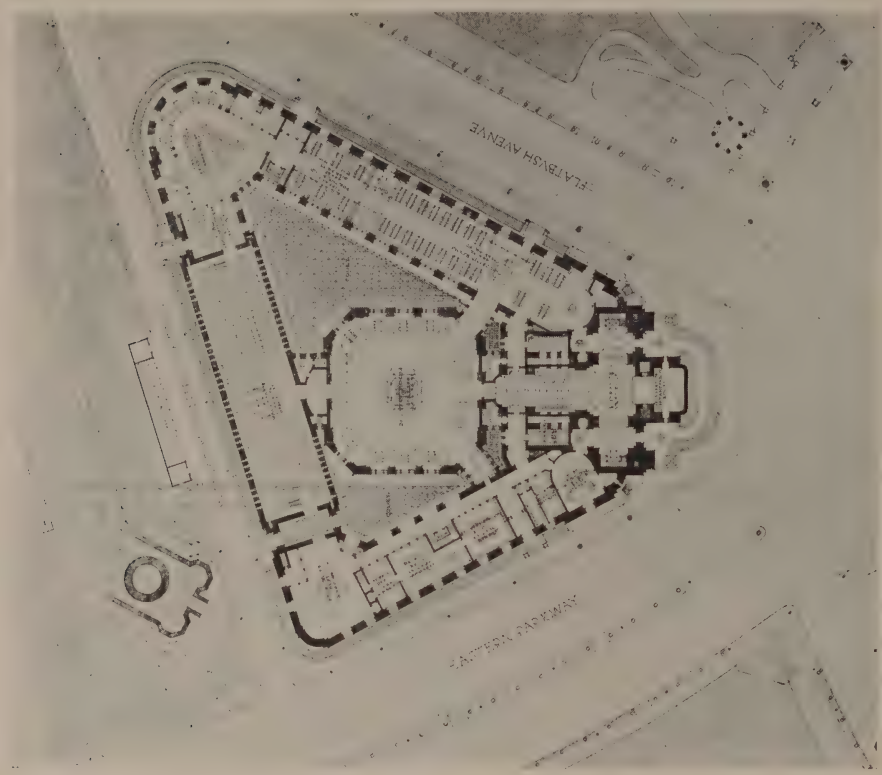
The objections which we raise above would perhaps have little or no *immediate* force were the scheme carried out as it stands; but it is for the future that such improvements must provide, and failing in amply providing for the conditions when the region in the Prospect Park section shall be thickly populated, the suggested embellishment of the Plaza is not a satisfactory solution of the problem. The possibilities exist for making of this point a civic centre worthy of a great city of the future, but these possibilities have not been realized in the scheme before us, which, although it is undoubtedly monumental in character, does not fully satisfy the requirements of future use.



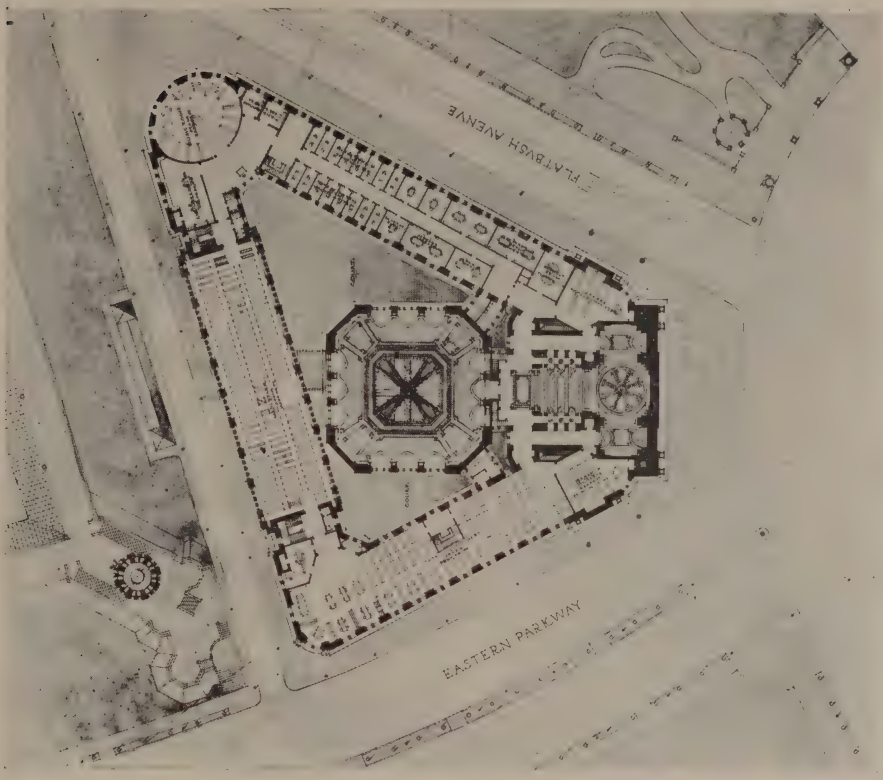
LONGITUDINAL SECTION. BROOKLYN CENTRAL LIBRARY.
Brooklyn, New York City. Raymond F. Almirall, Architect.



Brooklyn, New York City. Ground Floor Plan. BROOKLYN CENTRAL LIBRARY.



Main or Second Floor Plan. Raymond F. Almirall, Architect.



Third Floor Plan.
Raymond F. Almirall, Architect.

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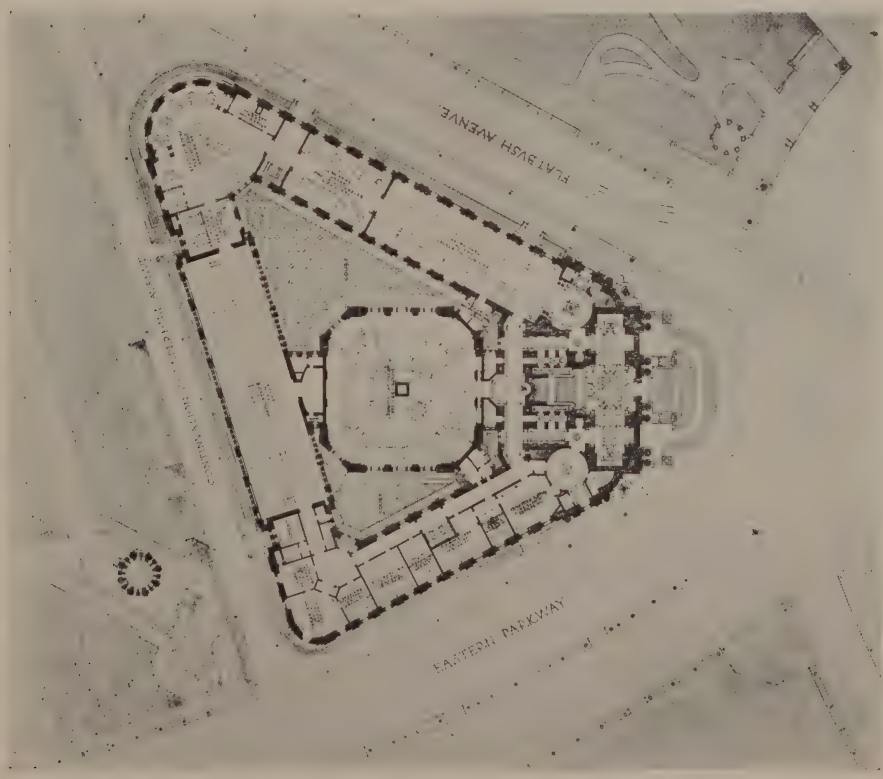
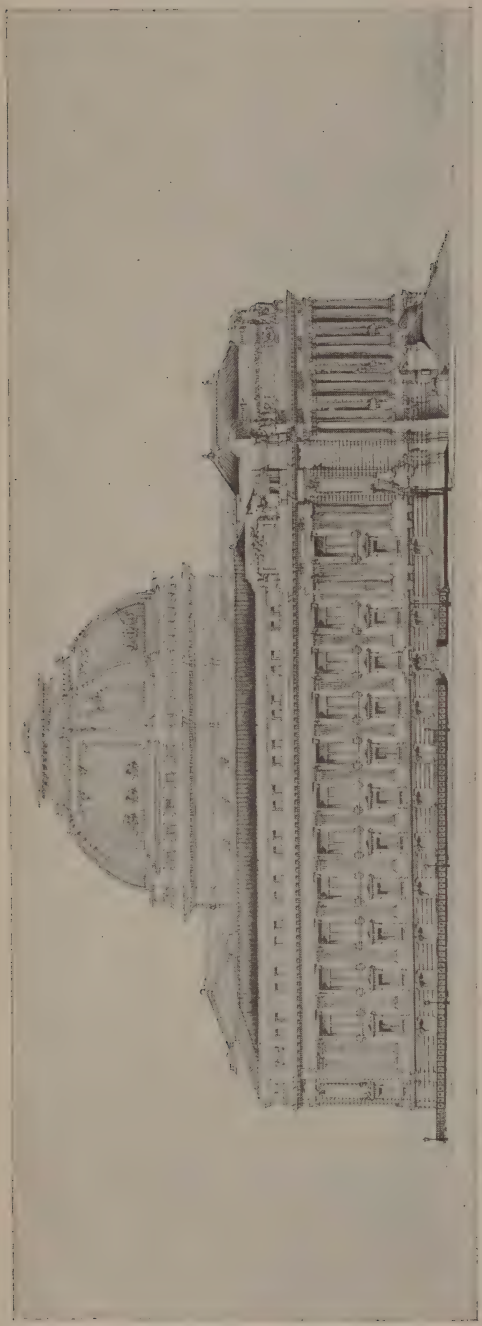
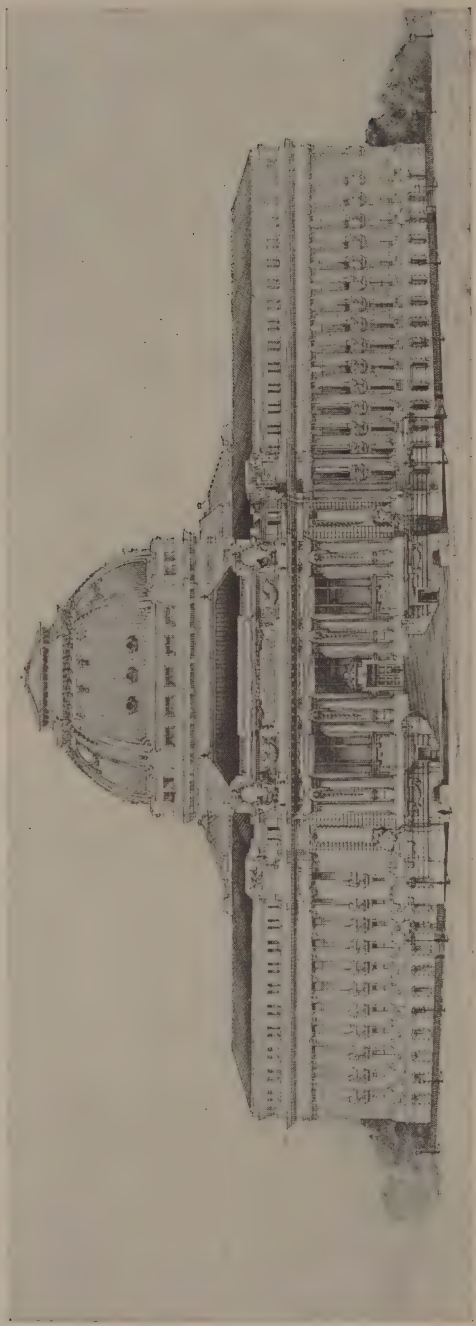


First Floor Plan.

Brooklyn, New York City.



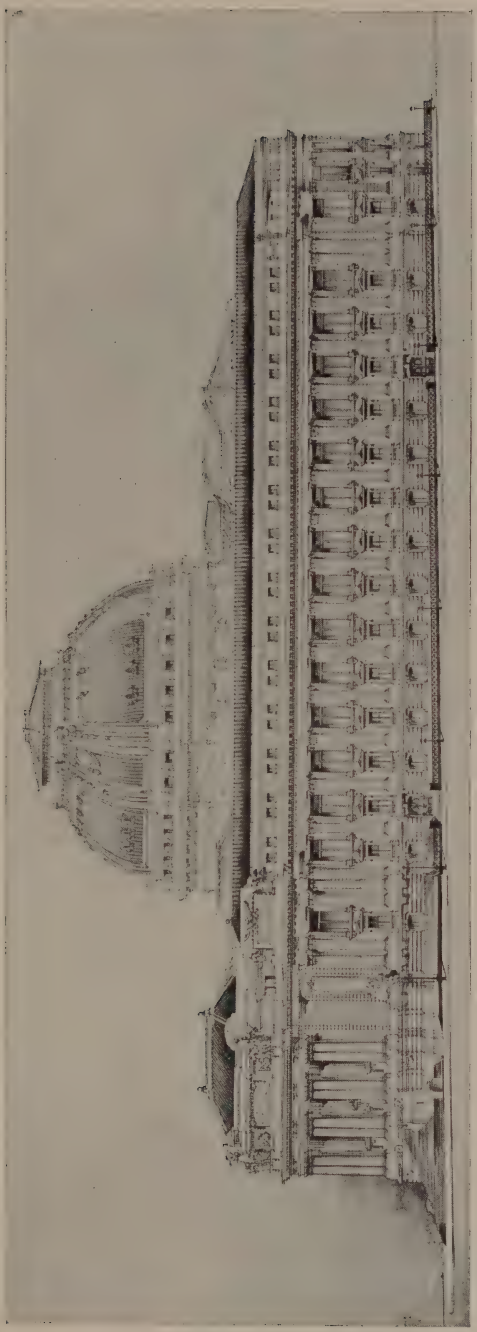
EASTERN PARKWAY ELEVATION.



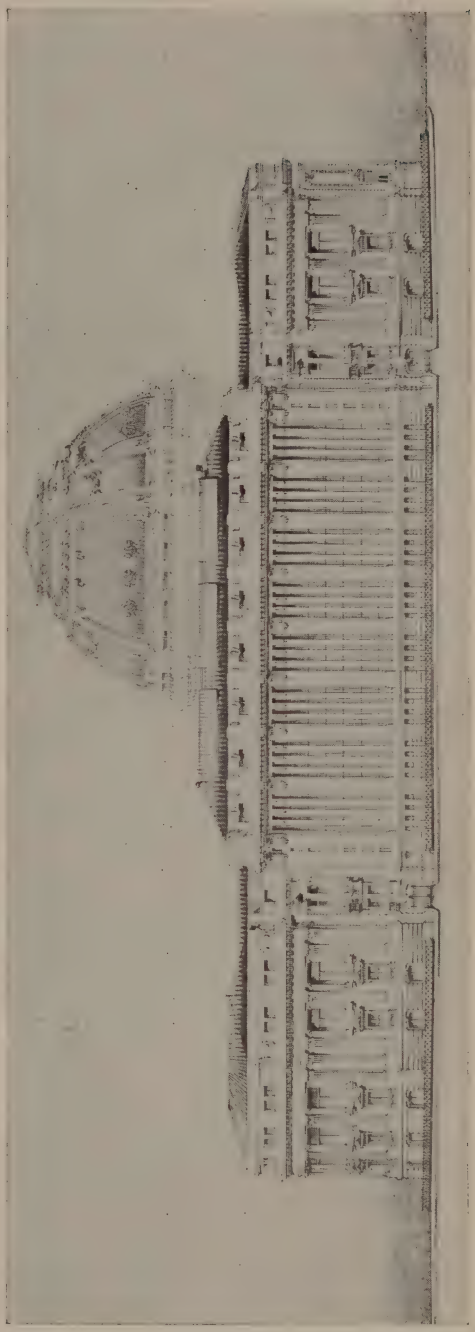
PLAZA ELEVATION. BROOKLYN CENTRAL LIBRARY

Raymond F. Almirall, Architect.

Brooklyn, New York City.



FLATBUSH AVENUE ELEVATION.



UNDERHILL AVENUE ELEVATION. BROOKLYN CENTRAL LIBRARY.
Brooklyn, New York City. Raymond F. Almirall, Architect.

THE BROOKLYN CENTRAL LIBRARY.

If the design which has been prepared for the trustees of the Brooklyn Public Library by the same architect is accepted, that borough will soon possess a main library of which any city might well be proud. Whatever shortcomings the Plaza plan itself may contain have been more than counterbalanced in the design for the new Central Library. Its position at the head of the openest part of the Plaza is a commanding and unrivaled one, and the manner in which the architect has adapted his plan on the irregular quadilateral site to the large requirements of the building is worthy of the most serious study and the highest appreciation. The accommodations provide for a most complete library, to house about two millions and a half of books. The entire building covers approximately 100,000 square feet, of which about 13,000 are occupied by two large open courts and four small ones, leaving a ground-floor area of between 75,000 and 80,000 square feet. The total floor area provided, not including the main and storage stacks, is about 270,000 square feet, or about six acres. This allowance of area, it is estimated, makes generous provision for specific requirements, without any attempt at mere size, the plan being so disposed as to admit readily of extension if at some future time the needs of the institution should outgrow its present ample accommodations. Such extension could be effected at the rear by bridging over Underhill avenue, as the architect points out, and utilizing a part of the site which is at present occupied by the reservoir that must inevitably give way in the event of other provision for the borough's water supply, which has recently been under discussion.

The plan may be said to recognize, in the functional requirements of the library, three distinct departments of activity which are separately connected with a central body containing two large halls of some 11,000 square feet each, covered by an externally prominent domical roof. These three separate departments of activity occupy the three wings which run parallel to the three long sides of the quadrilateral. The one on the Eastern Parkway contains the accommodations required by the administration of the institution; that on Flatbush avenue provides for the various public reading and study rooms; and the third wing on the rear contains the book stacks. All these departments are not only directly accessible from the two large central halls—the reference and delivery rooms—but they are easily reached from the main entrance on the Plaza. Attention must be called to the remarkable way in which the shape of the site lends itself to the distribution of these parts, providing precisely the relative amount of area which they require. Thus the greater length of the Flatbush avenue wing marks it for the main public departments, while the shorter one on the Parkway amply takes care of the accommodations demanded by the working departments of the library. Similarly, the Plaza side, being the shortest of all, is plainly marked for the main entrance, while the great stack room is appropriately placed in the rear, away from the public vestibule, but directly connected with the main distribution rooms on the basement and second floors in the centre, the administration wing on one side and the reading and study rooms on the other.

While these general excellences of plan disposition may be pointed out, it will also be admitted that there are some, perhaps minor, matters of design which it is not possible so unqualifiedly to commend. For instance, there seems no very good reason why the great stack room should be lighted by a series of openings which are hardly more than slits in the wall. These openings the architect has alternated, presumably for appearance, at every fourth window by a pier the width of two book stacks and a passage. The resulting external treatment is very effective, it is true. But would it not be preferable to have the book stacks better lighted, even if large windows would not seem to the designer so 'emblematic of the arrangement and function of the room behind them?' Under the present circumstances, it would be necessary to depend very largely on

artificial lighting for ready access to the books not very near the windows.

The *parti* of the plan cannot be called otherwise than simple and obvious, but it is this simplicity and obviousness in architecture which is one of the surest signs of serious and successful study. Like the masterpiece of a great artist, a simple architectural solution looks so incredibly easy of accomplishment that it would be impossible to convince a layman to the contrary without explaining to him the mental processes that had to be performed to attain the final and self-evident simplicity which is no more characteristic of a great piece of architecture than of an equally renowned painting or sculpture, marking them alike as exceptional artistic performances.

To those who are not architects, it may seem unnecessary and wrong to pay much attention to a mere plan. It will perhaps seem to them that as the building under discussion is very much in the nature of a public monument, the paramount consideration should be of "architecture," monumental effect and the like. As a matter of fact, the discussion *is* of architecture and monumentality, but all good architecture is referable to the plan from which any real merit must ultimately come. In the designs for a monumental building of the magnitude of that before us, the matters which it is most important to consider lie in the plan, and if this meets the requirements of use in an economical, efficient and effective manner, the character of the external or internal garb may, as a rule, be suitably modified, if necessary, to meet conditions of environment and cost. Proceeding, however, from what is unfortunately the popular notion of architecture, mere grandiose appearance, it is impossible to arrive at a good solution of the problem and produce something which could be worthy of the name architecture. In short, the conception of a building is inseparable from its plan, in which it must express itself first and last, and that being good there is every reason to believe that its façades and interior embellishment can be made equally as good as its plan disposition.

We must expect the importance of the plan in architecture will continue for some time to be very much underestimated by the outsider. Until the architect is allowed a fairer share of recognition as the responsible creator of what should of right be the most popular of arts, the average citizen will regard his performances as more or less superfluous and extravagant, basing his opinion always on secondary and unimportant features of the architect's work, which have long been held up to him as the essence of architectural art.

To return to the immediate subject in hand, the foregoing must not be interpreted as an apology for the form which has been given to the exterior and interior of the Brooklyn Central Library design. The intention is to lay emphasis on the fact that in viewing the drawings which we publish it is of far greater importance for the reader to remark in the plan the clever sequence of the main reading rooms, which has enabled the architect to dispense with the customary corridors, which would greatly reduce light and area, than to regard with approval or disapproval the decorative treatment of the entrance vestibule, with its grand staircase or the colonnade of the main façade, which are merely the embodiment of the emotional elements of the problem. These features are not the essential phases of the design, and are not in any sense to be regarded as fixed and definite, as are the conditions of planning which suggest them. They are subject to further study and elaboration or simplification without producing upon the basis of the building any radical modification. It is not the aim of the architect, in making a design, to state these matters of detail accurately, and as he necessarily intends them to appear in the finished structure. The study that would be required to depict faithfully the appearance of the building in its final adjustment of columns, pilasters, mouldings and carving would not only involve an enormous amount of labor, but would be equally undesirable,

as the slightest change in the disposition of the plan might make it necessary to repeat from the beginning all this labor, whereas the necessary parings and adjustments in plan which are involved in the subsequent closer and detailed study of features and details are in the nature of development and cause no great upheaval in the underlying structure of the design.

The general external treatment of the design which has been provided for the Brooklyn Central Library is pleasing and simple. The problem of the silhouette has been well handled. Obviously, the point from which most spectators will see the new library will be from the Plaza and on the Flatbush avenue side of the same. The problem to be solved, then, was to produce a sky line which should be equally effective with or without the large central mass. Great prominence has accordingly been given to the upper part of the great entrance vestibule, which, upon nearer view, forms an effective termination against the sky. The large domical roof performs a similar office when the building is viewed from a more distant point in the Plaza. It is, of course, difficult to avoid the impression that the great dome has been deposited, as it were, in the courtyard between the wings, but, in the present case, this feature's importance, architecturally, has been sufficiently reduced to minimize such an impression.

On the Flatbush avenue and Parkway elevations there seems to be no reason in the plan for treating the ends towards the Plaza with a prominent projection, and denying such terminations at the ends of these façades. Next to the great entrance feature on the Plaza, the most pleasing façade treatment is to be noticed on the rear or Underhill avenue façade. The clever manner in which the wings have been joined to each other at their unequal angles is to be remarked in that view. Another noticeable feature, and one which adds considerably to the building's monumental character, is the long, unbroken cornice lines of the wings. The rusticated base, too, helps in producing the general effect of strength and propriety which the design possesses.

The drawings which Mr. Almirall has prepared are as elaborate and well presented as any of which we have a recollection. The programme from which the architect worked is the labor of Mr. Frank P. Hill, the Chief Librarian of the Brooklyn Public Library, and is one of the most complete and exhaustive documents of the kind, embodying not only Mr. Hill's experience of library operation, but that of many leading librarians elsewhere, who were consulted as to the actual working of their buildings. To this combined experience is also to be added the co-operation of the architect and of Professor Hamlin, of Columbia University, whom the trustees of the Brooklyn Public Library employed as consulting architcet to give expert advice on the design provided.

The problem confronting the architect was therefore subject to three conditions: the programme, the site provided by the city, and the environment of this site. Of these conditions, which were not without their difficulties, the designer has, by virtue of the solution which he presents, acquitted himself with honor. He has achieved a design which the trustees of the Brooklyn Public Library have done well to accept, subject, of course, to further study and elaboration. And the citizens not only of the borough, but of the greater city, should now lend their influence to an end that will give them at the same time a splendid educational centre and a worthy public monument. *H. W. Frohne.*

An American Architecture

The lot of the writer of architectural criticisms must necessarily be a hard one, so long as the principles governing the designing of buildings are so differently understood and interpreted by those making the designs.

To demand a literal adherence to truthful expression of function from one who has attempted to faithfully reproduce a building or type of building of a by-gone age, which in its original state was erected to house some utterly different function, is manifestly to demand the impossible and condemn the whole thing from the first; and while it is obviously true that no building can be really great, architecturally, unless it does truthfully express its function, still the process of the evolution of styles is so gradual, and so much excellent effort is expended in this very effort to weld the old and the new, often with results ingenious and charming, that to condemn utterly because an illusion is created instead of a fact declared, would be not only unjust but would practically do away with the occupation of the writer of criticisms. For it is true that a vast majority, indeed, all but a small minority of our architects are actively engaged in this very exercise, the creation of architectural illusions; illusions of foreign lands and climates almost, indeed, to be classed as "scene painting" in solid materials.

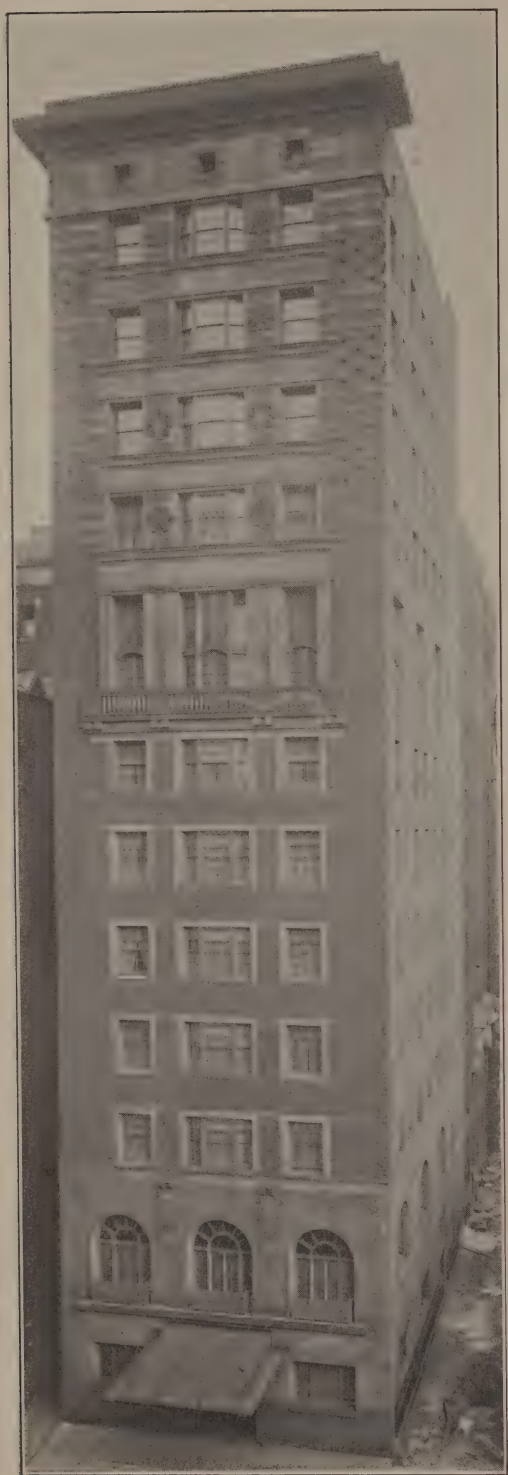
Within a single city block in almost any city in the country it is not unusual to find examples of the architecture of England, France, Italy, Germany and of various periods of each. The Greek or Roman temple serves indiscriminately as the model for a church, a library, a school or perhaps a power-house. The ancient emblems used in decoration, which had a definite and literal meaning in their own day, serve still to dress our buildings, and we still express our naval prowess in monuments ornamented with the prows of Roman galleys, just as forty years ago our sculptors dressed the Yankee bust of Abraham Lincoln in a toga to show that he was a statesman.

It is instructive to look back on the progress in sculpture in the last forty years as shown in the case of Lincoln and the toga, and to realize that our architecture is still largely in the "toga" stage.

So long as our architects continue to declare themselves exponents of definite foreign styles or methods—French, Italian, English, German, ancient or modern—and persist in an effort to graft these styles onto building conditions which are, and in the nature of things must be essentially modern and American, just so long our architecture will be neither definitely foreign nor definitely American; and the critic must content himself with admitting first of all the theory of evolution of styles, and next the premise of the designer that his particular style is right. After these admissions he may hold the designer to his own premise and judge him accordingly. But so long as logic is ignored or discarded in the first instance it cannot be well demanded if the business of writing architectural critiques is to continue, and perhaps it is not too much to hope that just as our sculptors have found in methods of directness and truth a notable modern expression for their art, so the art of architecture, with no thought for style may find in the simple expression of the great changes in modern life, modern building materials and methods of construction, a vital expression.

There would seem to be a better way.

The theory of the evolution of styles, as generally stated, is that our style is



ADDITION TO CHICAGO ATHLETIC CLUB, CHICAGO, ILL.
Richard E. Schmidt, Garden & Martin, Archts.

copied from another preceding it, and is so modified by differing conditions of climate, custom and function that it eventually achieves an individuality of its own that is recognized as a style. This is all very well, but is it not true that the copying is unconscious? Is it not true that the designer simply used the forms and methods that he knew and devoted his best attention to the solving of his local functional problems, thereby creating new forms and methods? Certainly we know that the forms of architecture always have followed the functions, that the changes have been as great in form as they have in custom or method.

We know that the discovery or invention of the principle of the arch completely altered the form and style of buildings. We know that the changes in style occurred sometimes swiftly, sometimes infinitesimally through ages exactly keeping pace with the changes in the people, their customs and the climate in which they live. It is not reasonable, then, to suppose that these changes in architectural form were simply due to an unconscious evolution in the minds of the builders striving to house their needs? Did they not simply use the forms they knew and create new ones as new needs arose? The Gothic builders followed the Romans, but they did not, even in Italy, follow the Roman forms, and probably they did not consciously abandon them. There had been a great change in mind and custom, and it was faithfully expressed in form and method of construction.

We are today undergoing great and rapid changes in mind and custom, and while our methods of construction have kept pace, the architectural forms have not. To-day the old system of piling stone upon stone, with inert weight as the bonding fibre in the tissue of the building, is largely superseded by the use of steel ties, beams and struts. Buildings no longer stand on the ground by sheer weight, but are rooted and tied deep in the ground as is a tree and they have assumed the same fibrous quality in construction, if not in form. In form they are still the same. Elaborately our

Chicago, Ill. THE CHAPIN & GORE BUILDING. Richard E. Schmidt, Architect.

architects strive to make the old, meagre handful of shapes and devices cover and hide the new big structural methods, but these new methods cannot be hidden, because they represent changes in our civilization. And the twenty-story skyscraper, standing on its puny stone-column legs, advertises the sham of its system of design, because the winds would so obviously topple it over if it were not fibrous, and its stone columns would so obviously burst and crush to pieces if they were really stone, as they pretend.

The trouble with our architecture is, we are trying to evolve it consciously, when the process of evolution is an unconscious one. Would it not be better to accept the new facts and methods as glorious opportunities and let them assert themselves in new and glorious forms? Piers, lintels, arches, tie-rods, walls, roofs, windows, materials, textures and colors are not peculiarities of any style or styles, but are common to all styles, those of the past and those of the future. Balance, proportion, rhythm, poise, are elements of all design, and we have the record of the history of art to teach us what they mean. Every new problem in building teems with suggestions for its solution, and when

THE CHAPIN & GORE BUILDING. DETAIL OF LOWER STORIES.
Chicago, Ill. Richard E. Schmidt, Architect.

our designers approach the new problems boldly and serenely, with a full knowledge of how the designers of the past achieved their great successes and with courage to try and do likewise we may begin to look forward to a day when our successes may also be great.

In the illustrations here published of some of the works of Richard E. Schmidt, and of the firm of Richard E. Schmidt, Garden & Martin, there is evidence of a definite attempt at something of this sort, an attempt to express the function of the different buildings and more particularly there is a sincerity in the use of materials in expressing the structural facts that is a step toward the fulfilment of the hope just expressed. While they are not buildings of the first importance, they are fairly representative of the variety of work that comes to the average architect's office.

The new building for Montgomery Ward & Co., which is rapidly approaching completion on the Chicago lake front, is a good example of the demands made upon the resourcefulness of the modern architect. It is essentially a new type. In the first place, it is huge, having a ground area of 147,000 square feet and a total floor area of 1,323,000 square feet. It has a length of 731 feet and a greatest depth of 275 feet, reduced by the irregularity of the lot to 153 feet on Chicago avenue. Its vast extent and its immense bulk towering as well as spreading are unrelieved by courts, either external or internal. In fact, it is a huge aggregation of storage lofts, nine stories high, a repetition of units of a monotony truly appalling. Next, it is entirely of reinforced concrete construction — foundations, columns, floors and walls all of concrete,

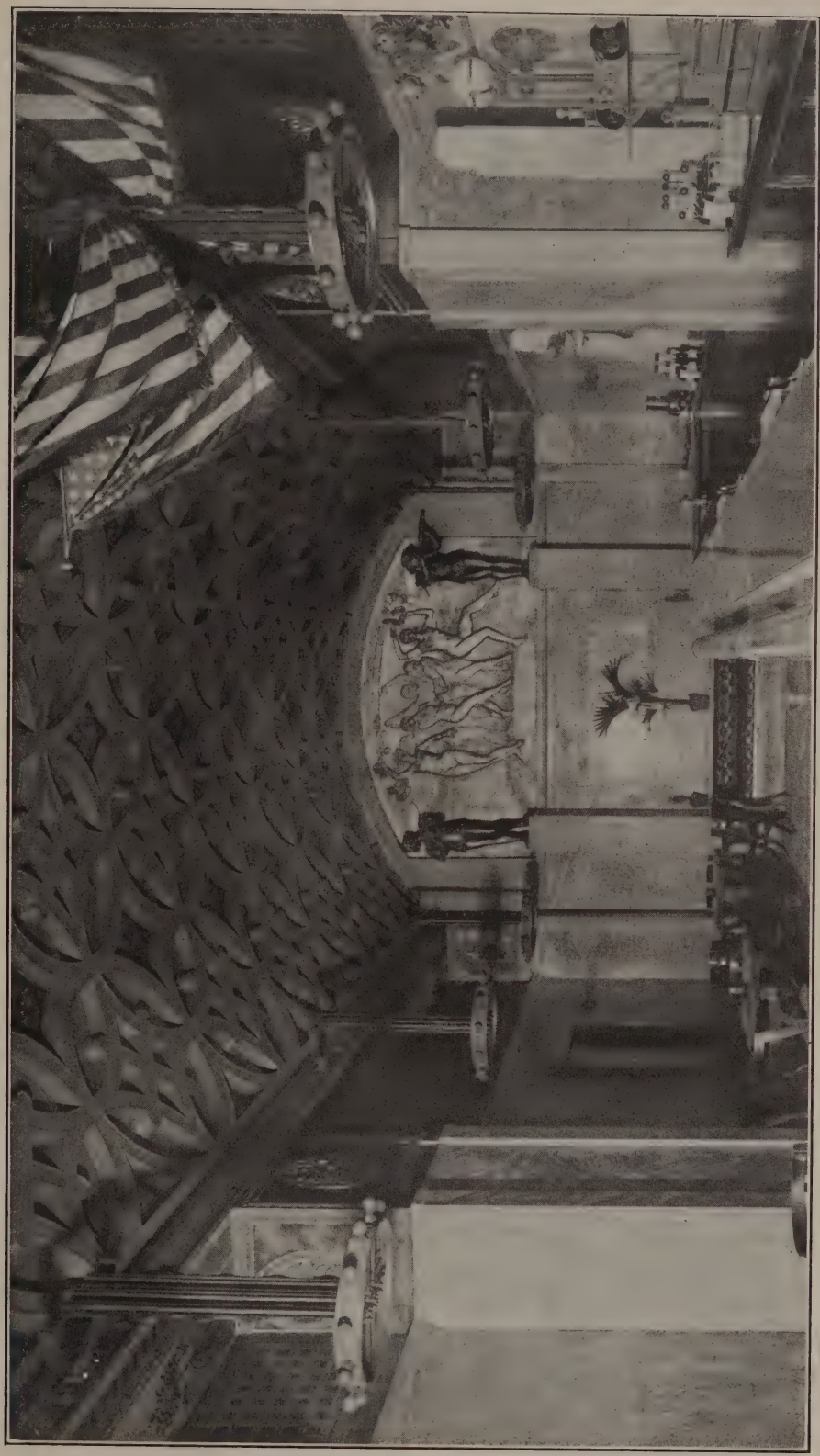
THE BROOKS CASINO.

Chicago, Ill. Richard E. Schmidt, Garden & Martin, Architects.

even to the exterior. And finally, it is a strictly commercial proposition. Built to house a great commercial establishment with the strictest economy, it is not intended to be an architectural monument. It will be noticed that these qualifications are functional, structural and economical, uninfluenced by any consideration for architectural display or effect. Indeed, beyond a natural desire for an effect of stability and order, one might say that in this building architectural expression was not wanted. The materials and dimensions are dictated by functional, structural and economical needs, and it only remained for the designer of this structure to give to the form and materials so dictated such architectural expression as he could.

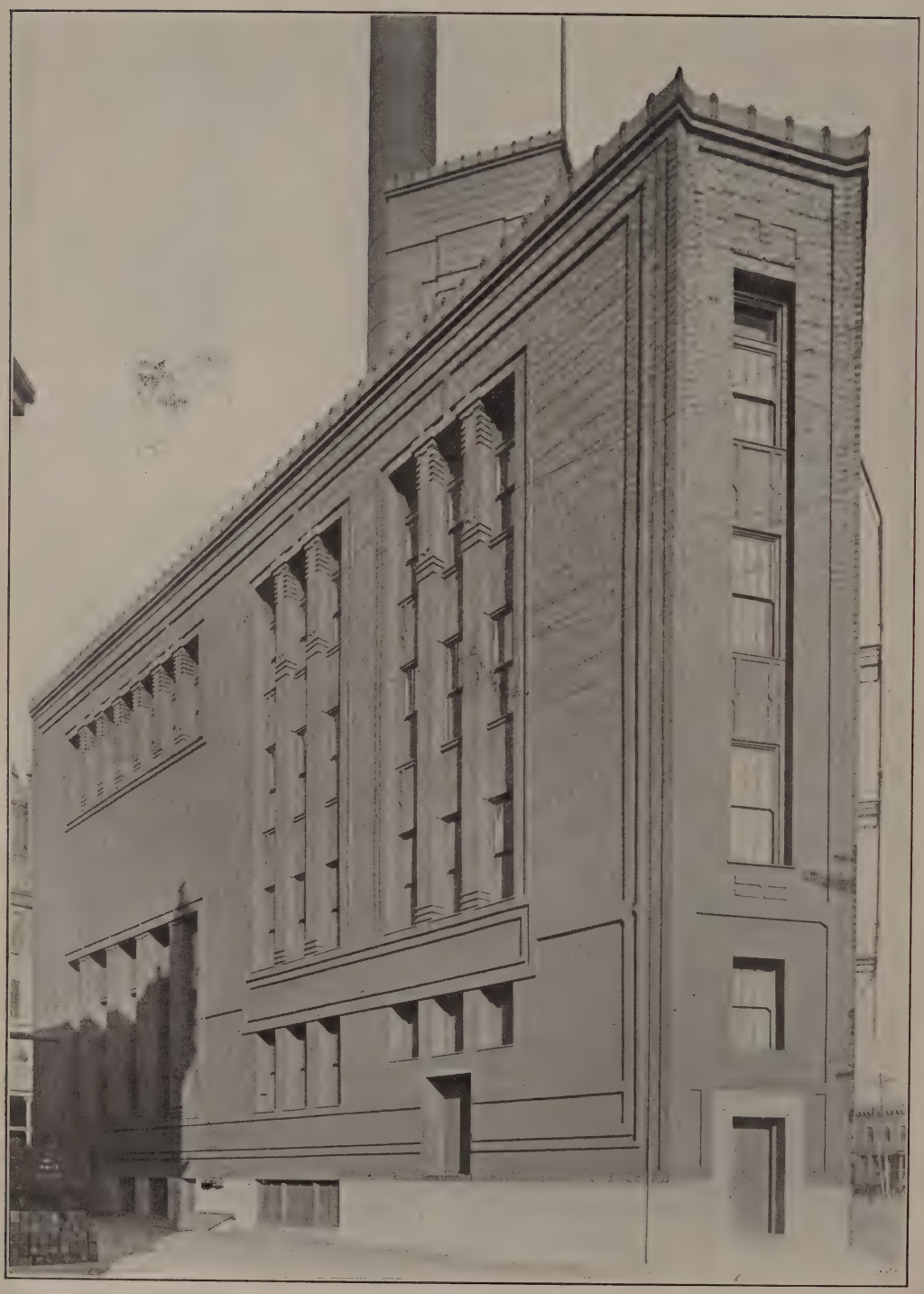
Obviously, the thing to be expressed first was the commercial entity of a huge enterprise, in itself giving to the structure the stamp of a new and modern type of building. Next, the fact of a new and modern system of construction—a plastic construction, moulded together in a practically liquid state into a great homogeneous whole; not piled together

Chicago, Ill. FIGURES IN MAJESTIC BAR.



THE MAJESTIC BAR, Richard E. Schmidt, Garden & Martin, Architects.

Chicago, Ill.



THE SCHOENHOFEN BREWERY.
18th and Canalport Streets. Chicago, Ill. Richard E. Schmidt, Architect.

piece upon piece in the masonry way, but molded together and interlaced with the fibres of steel which give to this material, concrete, the tensile quality which makes possible a new and modern system of construction, as new and as modern as the steel skeleton was in the day of its first invention.

We speak of the newness of reinforced concrete construction not as a thing new in this building, but as new in our day compared to the systems of construction of ages past. It is apparent that in a new type of building and with new materials, such as we have described, no adaptation of the old forms of architecture can have any meaning if we care anything for truth in the expression of function and structure.

On walls of such vast expanse cornices are futile; friezes, architraves and balustrades are ridiculous. The great

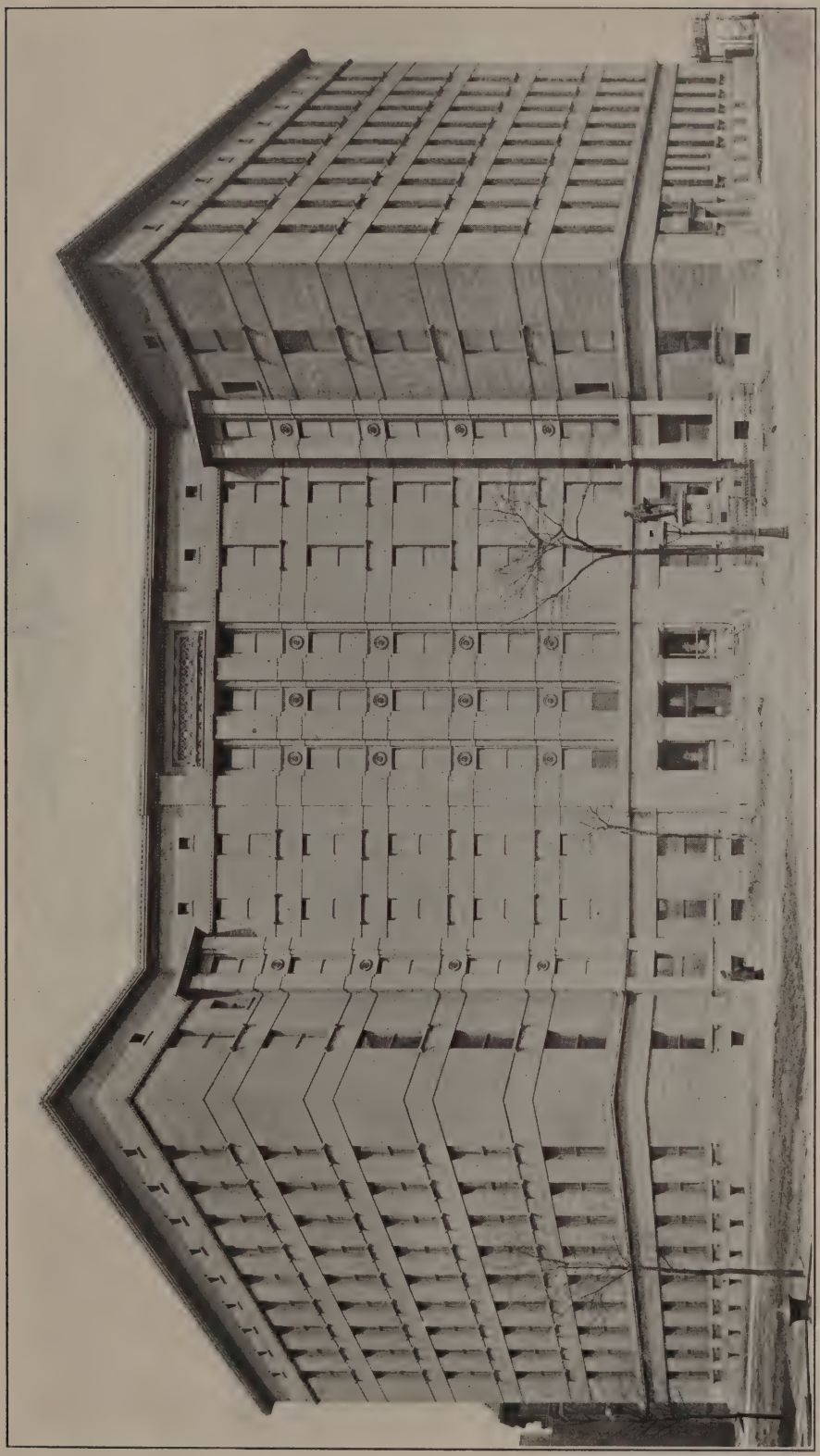
APARTMENT HOUSE,
Chicago, Ill. Richard E. Schmidt, Garden & Martin, Architects.

divisions of the building are the horizontal ones, the floors. Vertical divisions do not exist except as fire walls, which are made light and in a sense temporary, so that their location may be changed at will. Lines of structural columns and piers go through from wall to wall and from floor to floor with inevitable regularity. The windows are as large as may be and of a height which makes them practically twice as wide as they are high. These are all structural and functional demands. In the design the floor divisions are most strongly marked; the sills and lintels, the only projections on the wall, project only enough to shed water. There is no cornice; a small flush coping, placed in the unbroken wall surface above the topmost windows, fulfils in this building the demand for unification of parts which a cornice ordinarily supplies. The horizontal story division is accentuated by the filling in with brick of the spaces between the sills and lintels of the windows. These brick bands are of a dark reddish brown color, and with the small terra-cotta bands and panels of the same color inlaid in the piers form the only contrast with the gray cement surface of the exterior walls.

These bands and panels take the place of the usual mouldings and string courses which, in a building of more varied form, would fulfil the purpose of unifying the parts and giving to the whole, besides its sheer dimension and endless repetition, the quality of bigness, which architecturally represents the commercial greatness of the institution. In the first and second stories there is a change of function. These floors are given up to the executive and working departments of the business, and are distinguished from the storage floors above by a greater height and by being grouped together with piers running through both stories. Broadly, this is the meaning of the design. It states the facts with perfect candor; of repetition and order it makes rhythm; from monotony it draws repose, and always in its forms it is plastic. It is not the lintel which spans the opening—it is the wall; the lintel is but a drip moulding on the lower edge of a unit wall which in itself spans from pier to pier.

The design of this building will represent more nearly, perhaps than any of the others shown the methods of design discussed above. If it is not in itself beautiful or graceful, it is at least logical, and tells a plain, unvarnished tale. The plain, unvarnished ugliness of the problem is set forth with a candor and adroitness which almost, if not quite, saves the solution from damnation, and gives hope, at least, that the system of design under fairer, happier conditions will produce something fairer, happier and not less truthful. The other buildings illustrated herewith show, in a greater or less degree the same qualities as the building described. The Chicago Athletic Club building, in Madison street, is chiefly noticeable for the precision with which the club spirit is expressed in the design, something more private than a hotel, and none the less residential. It is also remarkable, structurally, in that, although 48 feet in width, it has no interior columns, each floor spanning from wall to wall. This would not be interesting except for the height of the building and the consequent problems of wind bracing. The building forms an addition to the old structure on Michigan avenue, and the necessity of having the banqueting hall on the eight floor, so that it is on the same level with the kitchen, which is in the old building, has introduced a story nearly twice as high as the other stories practically in the middle of the building. An interesting arrangement of fenestration is the result, and its success is attributable largely to the freedom of handling and the plastic quality of the design.

The Chapin & Gore building, in Adams street, has been reviewed before in these columns, but in this connection it is not out of place to call attention to it as another case of rigid adherence in design to functional demands. The piers and walls are of masonry construction, the lintels only being of fireproofed steel. The walls over openings are in all cases designed as self-carrying members, the lintel courses being merely decorative



THE MICHAEL REESE HOSPITAL. Richard E. Schmidt, Garden & Martin, Architects.

29th Street and Groveland, Chicago.

or not more than drip mouldings. This seems to us to clearly declare the encased steel support, and also to have the merit of truth, as no flat arch or apparent surface lintel of masonry could. The entrances are of solid granite blocks, including the lintels which carry the piers above. It is a curious condition of affairs that in looking at them we are so accustomed to expect a sham that we cannot believe that these fine stones are anything more than thin slabs veneering a steel lintel within. It is worth noticing that on this building the masonry and the skeleton construction are clearly and frankly differentiated in every case. The curious treatment of the second and third stories results from the fact that these floors are used as storerooms for the shop below, and require large wall spaces and small windows, while the upper stories, with large glass areas, are lofts built for renting purposes.

The Schoenhofen warehouse, which has also been illustrated in these columns, is again printed in order to call attention to the same expression of concealed steel lintels and masonry walls, and also to show where a complete change of function has received a completely different treatment without disturbing the unity of the design as a whole. This is shown in the view of the street façade, in which the back part of the building has a group of high windows lighting a boiler room over which is a plain broad wall, concealing suspended coal bunkers. Above this wall is a group of smaller windows, which light and ventilate the coal piles. The front of the building is occupied as a warehouse, with regular stories.

The Brooks Casino is an auditorium for band concerts. It is 80 feet in frontage by somewhat more in depth, and is spanned from wall to wall by steel trusses which carry the roof. It was desired to have the ceiling comparatively low for musical reasons. A concrete roof and ceiling was therefore combined, suspended from the trusses, following a curved line dropping to the eaves on each side of the building. This fact is clearly shown and used in the exterior as one of the principal motives of the design. A cantilever concrete balcony around the outside walls necessitates the division of the windows, and gives the building the appearance of having two stories.

In all of these buildings there was in each case a clear demand for a treatment new and modern. They are interesting for the frankness with which this demand has been met. In the remaining illustrations we have examples of originality, only less marked because less imperative. The handling of different materials has been the basis for the invention of new forms. Let the reader, for instance, study with care the illustration of the Majestic Bar. In the front of this structure the small façade is practically one sheet of delicately modeled cast bronze. The inside of this room is handled broadly in Swiss Cipolin marble, with logical recognition of its magnificent veining, and the purpose of the room is humorously handled in the sculptured decorations, where the dance is represented in the large relief panel and different varieties of vinous exhilaration in the six marble busts disposed along the bar screen.

William Herbert.

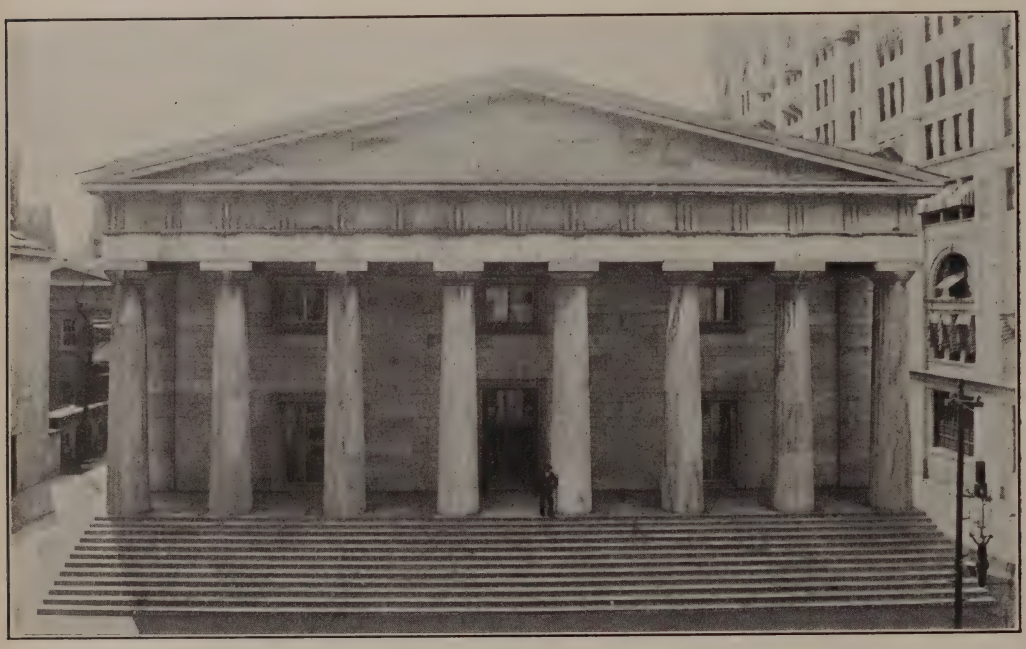
A Pioneer American Architect

Up to the beginning of this century, with, perhaps, the single exception of Charles Bullfinch, the first native professional architect, the professional architects in this country, at least those worthy of the name, were of foreign birth and education, and even Bullfinch, it is to be noted, was educated abroad. American architects were slow in devoloping, and Thomas Jefferson, himself an amateur architect of no mean ability, writes in his notes on the State of Virginia, 1781: "The Genius of architecture seems to have shed its maledictions over this land. The first principles of the art are unknown, and there exists scarcely a model among us sufficiently chaste to give an idea of them."

Six years after Jefferson wrote the above sentence a boy was born in Philadelphia, who, if he did not come as a reformer, was, at least, destined in later years to achieve a proud place by good work in the architectural annals of his day; and, coming at a time when American-born architects with talent or merit were few indeed, the career of William Strickland, who, during his time, was

WILLIAM STRICKLAND, ARCHITECT.
(1787-1854.)

very generally recognized as the leading native architect in America, should be of considerable interest. Yet the present age of progressive architecture has so far, in many respects, gone ahead of Strickland that his designs and works have become to an extent obsolete and his career has now been well-nigh forgotten, only occasionally to be recalled in a casual manner in connection with some of the buildings which he designed, and which will stand and at times assert their beauty and prominence to the attention of those who have occasion to come in contact with them.



THE U. S. CUSTOM HOUSE.

Philadelphia, Pa. William Strickland, Architect.

William Strickland was a self-made man, and, as his career shows, he must have possessed considerable genius, as he acquired in his own land enough architectural training to design buildings of considerable extent and power, and to apply the forms of the pure classic order without committing glaring solecisms.

It cannot be said of him that he was the founder of any new or distinct school of American architecture, although he was among the first architects of this country to make a departure from the Colonial methods of house building and designs which had prevailed from the beginning; but in his drawings he followed, usually, the methods of his foreign-born predecessors in the profession.

Perhaps the particular reason why the life of Strickland is of interest in our day is because he was probably the first American born and educated architect to demonstrate that it was not necessary for his countrymen, when contemplating the erection of important structures, to employ foreign talent to carry out their ideas, and that Thomas Jefferson's evil forebodings regarding the school of American architecture were soon to be set aside by a race of native architects, of which Strickland was the forerunner.

William Strickland commenced his career at a most interesting period in the history of American architecture, about the time when the Colonial methods were fast giving way to a revival, largely of the classic or pure Grecian style of architecture, brought about by Thomas Jefferson.

From all accounts, it appears that Strickland's first inclinations were not towards architecture as a profession, as at first he seemed to prefer the painter's brush and the tool of the engraver. He studied art and architecture in Philadelphia, under Benjamin Latrobe, an Englishman, who was an artist as well as an architect; and first set up in business for himself as a landscape painter. He soon acquired the art of engraving his pictures, many of his plates being printed in the "Portfolio," a magazine published in the Quaker City in 1814, 1815 and 1816. In view of the late date of the publication of some of his engravings, Strickland, even after he had abandoned painting as a profession for that of architecture, must still have indulged in his favorite pursuit as a pastime, as his first important architectural work was executed and finished as early as 1809, when the cornerstone of the Masonic Temple was laid.

The style of this structure was Gothic. The building was crowned with a steeple and a spire of reputed beauty. For many years it was the pride and admiration of every Philadelphian, and was used not only for a meeting-place of the Masonic fraternity, but also as a hall where fairs and many other entertainments were held. The use of gas as an illuminating power in public buildings in Philadelphia was first tried successfully in Masonic Hall.

On the 9th of March, 1819, a fire, caused by a defective flue, broke out in Masonic Hall, and in an hour after the first alarm the flames were roaring and triumphing with vindictive fury within the walls of William Strickland's maiden architectural effort. In an hour or more the beautiful steeple had fallen, and by three o'clock the next morning the only memorials of the late Masonic edifice were the blackened walls, fitfully revealed by the light of burning embers. The destruction of this building, which was during its day probably the most important piece of architecture in Philadelphia, made a great impression on the minds of the citizens, and a large lithograph, picturing the burning of the

THE U. S. MINT.
(Lately demolished and replaced by a new and larger structure on Spring Garden Street.)
Philadelphia, Pa. William Strickland, Architect.

THE OLD MASONIC TEMPLE.
(From a rare print.)

Philadelphia, Pa. William Strickland, Architect.

building was shortly after published and had an extensive sale. The illustration accompanying this article, and copied from this lithograph, which is now quite rare and eagerly sought after by collectors of such material, furnishes a very fair idea of the general appearance of the Masonic Hall.

After executing his commission from the Masons, Mr. Strickland's next, and probably most important work in Philadelphia, was the United States Bank building, in Chestnut street, between Third and Fourth, now the Custom House, which, after an existence of over fifty years, is to-day acknowledged to be one of the attractive buildings in Philadelphia. In general appearance it resembles the Parthenon, although in general dimensions it is smaller than the latter building. Their respective proportions are: the Parthenon, one hundred and one feet one inch in front, excluding the steps, and two hundred and twenty-seven feet in length, excluding the steps; while the Custom House has a frontage of eighty-seven feet, excluding the steps, and is one hundred and sixty-one feet in length, excluding the steps, making the Parthenon fourteen feet wider and sixty-six feet seven inches longer than the Custom House. But, as the Parthenon has only three steps, while the Custom House has thirteen, extending thirteen feet on each front, the length of the buildings, respectively, including the steps, would be considerably varied, the length of the Custom House from the outer step being one hundred and seven feet, and that of the Parthenon two hundred and thirty-six feet nine inches. However, the double row of columns of the portico, and the flanking colonnades of the Parthenon, requires so much space that the actual dimensions of the interior of the two buildings are much more nearly equal than their proportions would indicate.

THE U. S. NAVAL ASYLUM.

Philadelphia, Pa. William Strickland, Architect.

The principal apparent differences to the casual observer in the exterior of the Custom House and the Parthenon are that the Parthenon has a colonnade on the flanks which is wanting in the Custom House, perhaps on account of the extra expense that it would have entailed. Another difference is the absence of the second row of columns on

the portico. These colonnades of the Parthenon are very rare in Greek architecture, as many Greeks doubted their artistic advantage, claiming that they had a tendency to complicate the simplicity of the style. There are eight fluted columns, each twenty-seven feet high by four feet six inches in diameter, supporting the portico of the front entrance, and the same number on the rear façade of the building.

INDEPENDENCE HALL.
Philadelphia, Pa. (Remodeled by Strickland in 1828.)

A curious item in connection with Mr. Strickland and the Philadelphia Custom House is that he not only designed the present structure, but also the first Federal building used for a Custom House in Philadelphia. This building was opened on the 12th of July, 1819. It was without architectural pretensions, apparently, being a plain building, three stories in height, the front of the first story of marble. The second story was lighted by arched windows. Small square windows were above them. The roof stood gable fashion, rising above the third story. A niche near the apex contained a fine statue in wood representing Commerce and carved by William Rush, the first American sculptor. The principal stories of the building were of brick, while large warehouses were built back of the main structure for storage purposes. The building stood back from the street a distance of forty or fifty feet. On Second Street, and protected by an iron gate, there was a heavy brick archway, with a wide passage in the center for drays and carts. Small entrances for pedestrians were on either side. From these entrances extended on either side of the archway a low wall, surmounted by iron palings. The entrance in front of the building was by a central doorway, which led to the main business room in the second story. In this building the business of the Phila-

delphia Custom House was carried on until 1845, when, the United States Bank having failed, the Federal government purchased its building, which has since been in use as a custom house.

In 1815, about the time that Mr. Strickland was commissioned by the government to design the first custom house in Philadelphia, he also received a commission from the managers of the Academy of Natural Sciences, now one of the foremost institutions of its kind in the world, to prepare plans for a hall. The collection belonging to the Academy having by that time outgrown its quarters in rooms on North Second street. Mr. Strickland's drawings called for an exceedingly plain building, which was erected in the summer of 1815. It was built of brick, three stories in height, and contained one good-sized room on each floor. Although unpretentious in appearance, and lacking any architectural embellishments, this old building, which is still standing but sadly altered and in a dilapidated condition to the rear of a court running off Arch street, between Front and Second streets, is interesting for two reasons. Firstly, because it was the original home of the Academy of Natural Sciences, and serves, by comparison with the magnificent building at Nineteenth and Race streets, which is now occupied by the Academy, to illustrate the growth and progress of this institution; and, sec-

ST. PAUL'S CHURCH.

Philadelphia, Pa. William Strickland, Architect.

ondly, as a specimen of Mr. Strickland's early and most unpretentious architectural efforts.

Judging from the great majority of his works, it is evident that Mr. Strickland was an ardent admirer of Greek architecture, as the majority of the important buildings designed by him adhere closely to that classical style. After the completion of the Bank of the United States building, in 1824, Mr. Strickland took his place as one of the foremost of America's architects, and the number of commissions which he received must have been exceedingly gratifying to him.

THE OLD CHESTNUT STREET THEATRE.
(From a photograph taken in 1858.)
Philadelphia, Pa. William Strickland, Architect.

On the 2d of March, 1829, a resolution was passed by Congress making a liberal provision for the purchase of a suitable lot on which to erect a new mint in Philadelphia. In pursuance of this resolution, a plot of ground on the

northwest corner of Chestnut and Juniper streets, extending northward to Olive street, one hundred and fifty feet front by one hundred and four feet deep, was purchased. Mr. Strickland was employed to prepare a design for the building to be erected upon this property. He planned an edifice, employing the Ionic order, taken from the celebrated temple of Ilyssus, near Athens, designing a portico of sixty feet frontage, with six pillars of the Ionic order on the north and south fronts; the front was one hundred and twenty-three feet, and the building carried of that width from street to street one hundred and ninety-three feet, including therein two porticos, each twenty-seven feet in depth, making a building space one hundred and twenty-three feet wide by one hundred and thirty-nine feet deep, leaving small open spaces on the east and west. The form of the building was a quadrant, with an open court fifty-five by eighty-four feet in the centre.

This building, when finished, was regarded as a model of architectural propriety, hardly to be surpassed in times to come; but the natural increase of business as the country enlarged in the past fifty years had necessitated several enlargements and architectural changes which were not to its advantage. It was recently demolished, and a new and much more spacious mint building on Spring Garden street replaces it.

Another government commission which Mr. Strickland satisfactorily executed was for the United States Naval Asylum, on Gray's Ferry Road, in Philadelphia, which was commenced in 1827. The edifice faces east, and is constructed of grayish-white marble, with a granite basement. It is three hundred and eighty feet in length, and consists of a centre, with a high, broad flight of marble steps and imposing abutments and a marble colonnade and pediments. The wings are symmetrical and terminate in pavilions, or transverse buildings, at each end, furnished with broad covered verandas on each of the two main floors.

THE ARCH STREET THEATRE BEFORE ALTERATIONS.
(From an old print.)

Philadelphia, Pa. William Strickland, Architect.

The building was first occupied in the latter part of 1832, but was not finished until 1848.

In 1828, when the city councils of Philadelphia determined to restore historic Independence Hall, Mr. Strickland was invited to direct his attention towards the preparation of plans for that purpose. The first plans which he prepared were not satisfactory to councils, and he was compelled to modify them. Colonial architecture was one branch of his profession to which he appears to have paid but little attention up to this time, but any one who has seen Independence Hall cannot but agree that the alterations which were made in it under Strickland's direction follow out closely and harmonize well with the ideas of its colonial builders. The principal feature of the restoration appears to have been the rebuilding of the spire, which had been taken down, and putting a clock and bell therein, thus restoring the building to something like its appearance in 1776.

THE BLICKLY ALMSHOUSE.

Philadelphia, Pa. William Strickland, Architect.

As a church architect, Mr. Strickland was much sought after, and some of the handsomest and most attractive old-time churches in Philadelphia fifty years ago were of his planning. Unfortunately, the majority of these sacred edifices have been taken down; only two churches designed by Mr. Strickland still stand in Philadelphia—St. Paul's Protestant Episcopal Church, on Third street, near Walnut, a very good example of this line of his work; and St. Stephen's, on Tenth street, near Chestnut. St. Stephen's is a much more ornate building than St. Paul's, which adheres closely to the Colonial style, while St. Stephen's, which was altered from another building, is of Gothic design. Its cornerstone was laid on the 30th of May, 1822.

As an architect of theatres, as well as a designer for buildings dedicated to church purposes, Mr. Strickland was equally in demand. He designed what were in his day the two leading theatres in Philadelphia—the old Chestnut Street Theatre, which was pulled down in 1854, and the Arch Street Theatre, which is still in existence, although much altered in appearance and now unused.

Although the Chestnut Street Theatre was generally admired, there was some criticism upon the design of the front, and one local poet, in referring to it, wrote as follows:

THE MERCHANTS' EXCHANGE NOW KNOWN AS THE STOCK EXCHANGE.
Philadelphia, Pa. William Strickland, Architect.

"Its columns Corinthian, in Italy sculptured,
Attest how the arts 'mongst ourselves have been cultured,
Fluted off and got up without flaw or disaster,
What a shame they omitted to flute the pilaster!
Their arrangement is neat and supporting—but, rot it!—
A pediment only, the builder forgot it!"

From this poetical effusion it is to be judged that the architecture of the old Chestnut was in Mr. Strickland's favorite line—Greek.

The Arch Street Theatre was opened

about 1828. When finished it was regarded as distinctly in advance of the theatre architecture then in vogue. The front was of marble. A screen of columns projected nearly to the line of the street supporting a Doric frieze, and flanked by marble wings. The latter opened to the staircase and to the pit, which was reached by a descent from the street. In the face of the building, above the line of the second story, was built a huge marble block, out of which, several years after the house was opened, the sculptor Grevelot cut, in alto-relief, a figure of Apollo. In 1863 extensive alterations were made in the front of the theatre. Nothing remains of it to-day except the figure of Apollo, which was placed in a prominent position in the front of the building, above the line of the third story.

When the city of Philadelphia purchased two hundred acres of land on the west side of the Schuylkill River, for the purpose of erecting thereon an almshouse for the city poor, Mr. Strickland was called upon to submit a design for the buildings. He planned four distinct structures, disposed at right angles with each other and enclosing an interior space of seven hundred by five hundred feet. The men's almshouse fronts the southeast. The main building contains a portico ninety feet in front, supported by eight columns, five feet in diameter at the base and thirty feet in height, on the Tuscan order of architecture, built of brick and rough cast. The building is flanked by two wings, each two hundred feet in length, the portico being elevated on a high flight of steps rising before the basement story to those of the upper story, and thus giving to this group of buildings a commanding appearance. The almshouse was first occupied about the year 1835.

The necessity felt by the Philadelphia merchants for some common point of meeting, where they could talk over matters pertaining to their business, and arrange for purchases and sales, resulted, after a company had been formed known as the "Philadelphia Merchants' Exchange Company," in their giving Mr. Strickland an order to prepare plans for a suitable structure for their accommodation. The cornerstone of this building was laid on the 22d of February, 1832, and it was opened for business early in 1834, and is at present the Stock Exchange. It is built of Pennsylvania marble, and is in the shape of a parallelogram, having a frontage of ninety-five feet on Third street and a depth of a hundred and fourteen feet on Walnut street, and is one of the most unique and original of Strickland's buildings. There is a semicircular attachment in the rear with a radius of thirty-six feet, which makes the total length, from front to rear, one hundred and fifty feet. The semicircular portion is embellished with a portico of eight Corinthian columns and antae. A circular lantern rises forty feet above, and is pierced with windows and ornamented. The building was of striking appearance; the photograph which we reproduce herewith was taken after needful alterations had been made.

Mr. Strickland died in 1854, while engaged in superintending the construction of the State House at Nashville, Tenn. By a vote of the Legislature of that State, a tomb was prepared for his remains in the splendid edifice which he was constructing, and there his body was deposited. On a slab in the tomb is this inscription: "William Strickland, architect of this building, born at Philadelphia, 1787; died at Nashville, April 7, 1854."

Strickland's last great architectural effort was, in style, not a departure from his favorite Greek architecture. It is a white marble building, with high Greek porches supported by eight Corinthian columns at each end. In the centre of either side smaller porches, supported by six Corinthian columns each, have been placed. The building is crowned with a small tower, which is capped with a circular lantern, pierced with windows and ornamented. This lantern is much the same in appearance as the one which rises above the Stock Exchange in Philadelphia.

The State House at Nashville stands on a high eminence, some little distance back from the street. It is approached along pretty walks, laid out through grounds well cultivated with trees and

flowers, which add greatly to the attractiveness of the building, forming a background for it of living green that tends to heighten the whiteness of the marble of which it is built, and to present the building in strong contrast to its surroundings. To architects of the present day, this old-fashioned structure, if examined closely, would probably be found to possess many glaring crudities; but, as a specimen of the work of a native American architect of fifty odd years ago, it can hardly be regarded in any other light than as a very creditable piece of work for the period in which it was designed and planned. Mr. Strickland was one of the first American architects and engineers to turn his attention to the construction of railroads, going abroad to study the best systems in vogue on the Continent. On his return he built the Delaware breakwater for the United States government. This work was commenced in 1829, and was an engineering feat of considerable magnitude.

Besides being an artist, architect and engineer, Mr. Strickland was also the author of several pamphlets; among them may be mentioned "Triangulation of the Entrance into Delaware Bay," "Reports on Canals and Railways" (1826), and, together with Gill and Campbell, "Public Works of the United States" (1841).

THE STATE HOUSE,

Nashville, Tenn. William Strickland, Architect.

This is a glimpse of the life story of William Strickland, whose corner in the history of architecture in America has been much neglected of late years, although he appears to have been the first American architect, born and educated, who succeeded in winning for himself a renown which made him the equal of some of the leading foreign architects of his age.

E. Leslie Gilliams.

TEACHERS COLLEGE.

W. B. Ittner, Architect,

St. Louis, Mo.

COTE BRILLIANTE SCHOOL.

St. Louis, Mo. W. B. Ittner, Architect.

NOTES & COMMENTS

ST. LOUIS SCHOOL BUILDINGS

There is a growing suspicion among architects that the building of St. Louis, in several departments, deserves more attention outside of St. Louis than it has thus far received. Mr. Ittner, the architect of the St. Louis schools, has lately been publishing a series of illustrations of the school buildings erected from his designs which confirms this suspicion as to those edifices. His description is illustrated with plans and sections and details which should be very useful to architects engaged upon similar tasks elsewhere. But the photographs of the exteriors make a most favorable impression upon disinterested lovers of architecture whose only care respecting the school buildings of St. Louis is that they should be worth looking at. Even visitors to the Louisiana Purchase Exposition, unless they happened to be specialists, did not pay as much attention to the ordinary and unexpositional architecture of the city as it deserved. Moreover, some of the most interesting and typical of the school buildings had not at that time been erected. So that the accompanying illustrations of the school architecture of St. Louis will, to many if not to most of our readers, have the attraction of novelty in addition to their intrinsic attractions.

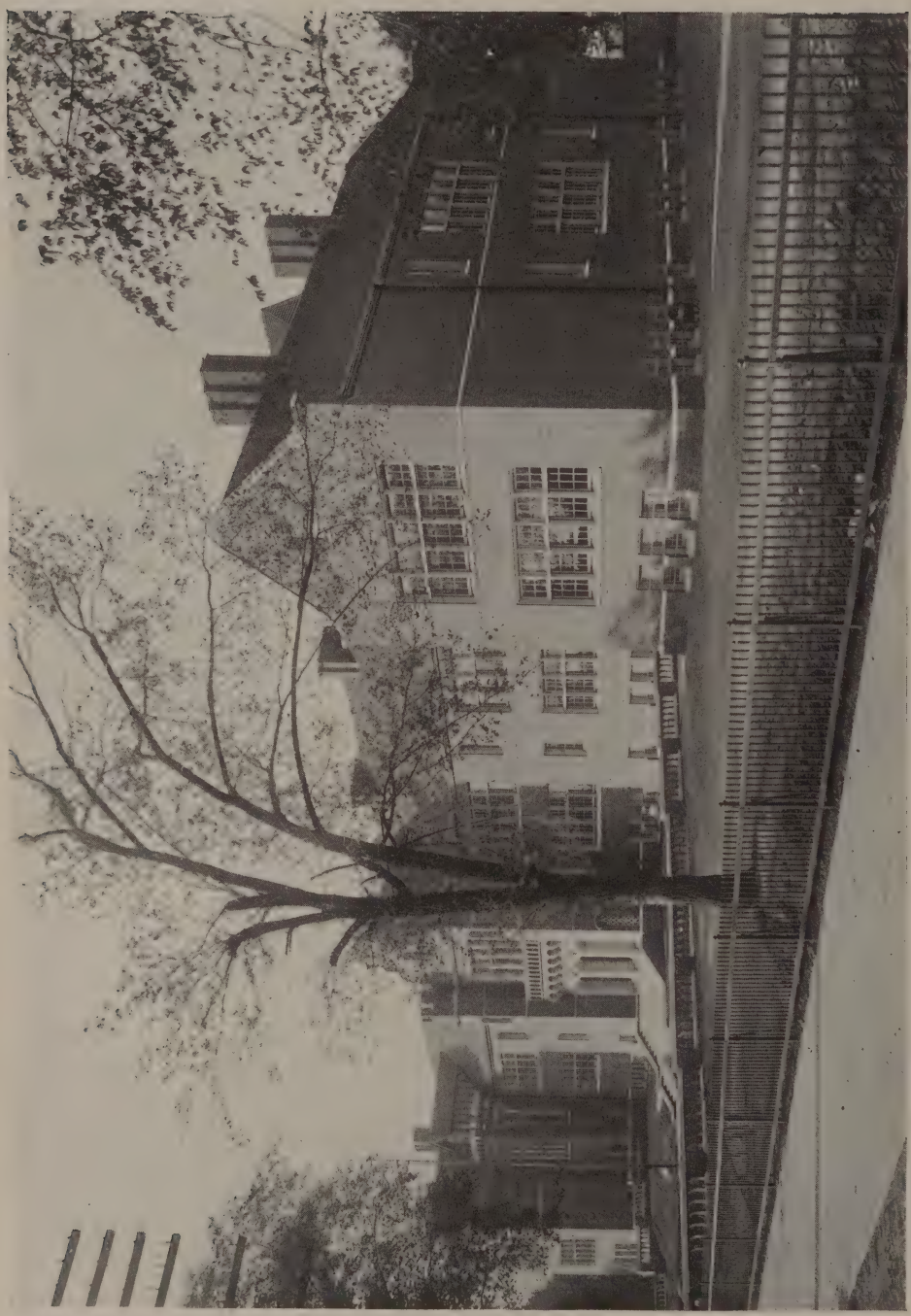
While waiving any intention of discussing the special requirements of school houses, we may point out that there is one fact about them, one element in the problem, which compels attention, for it forces itself upon the notice even of the beholder of the exteriors. That is the need for light, for more light, for all the light. In fact, this is also the, or at least a, primary requirement of the skyscraper. The invention of the skeleton construction has in the skyscraper enabled this requirement to be met far more satisfactorily than it ever could have been met if the architects had been confined to an actual masonry construction. But in fact if architects were confined to an actual masonry construction there would have been no skyscrapers at all. So much space would have been absorbed in the actual thickness of the necessary walls that inordinate altitudes would have lost their economical excuse for existence. Ten stories, it appears, would have been the maximum that would have been attained if the steel frame had not come in to supplement the skyscraper as the other factor of the tall building. The steel frame enables even a lofty tower to be constructed as a sash frame. The school buildings of St. Louis are no more skyscrapers than those which have been erected under Mr. Snyder's administration in New York. Not so much, for three stories appears to be the maximum in St. Louis school building,

WYMAN SCHOOL.

W. B. Ittner, Architect.

St. Louis, Mo.

St. Louis, Mo. CLARK SCHOOL. W. B. Ittner, Architect.



HEMPSTEAD SCHOOL, W. B. Ittner, Architect,

St. Louis, Mo.

whereas New York school building goes a story or two higher. But Mr. Ittner's schools bear a family resemblance to those of Mr. Snyder, a family resemblance due, one may suppose, not to imitation but to a wall and sturdy pier, from the general want of massiveness. Nobody would think of imputing this want of massiveness to the designer as a fault. In each case his work signifies that he is keenly alive to it, and

LAFAYETTE SCHOOL—ENTRANCE.

St. Louis, Mo. W. B. Ittner, Architect.

compliance in each case with the same set of practical requirements. And in each case the first of these requirements being abundant light, the architecture suffers from it, suffers from the want of unbroken would be only too glad to help it if he could. Being compelled to build a sash frame he honestly builds a sash frame and does not attempt to "palliate or deny" the skeleton character of his architecture. But it re-

mains true that a building all sash frame cannot be as welcome a work of architecture as a building in which the openings are visibly and emphatically framed in their enclosing masonry.

In the respect to which we have referred, the respect of their comparative lowness, the school buildings of St. Louis enjoy a great architectural advantage over those of New York, an advantage apparently due to the lower degree of congestion and the consequent lower cost of land. Three stories of school house are architecturally as well as practically more eligible than four, if you can afford to limit yourself to three. Similarly two are more eligible than three. Look for example at our illustration, the Teachers' College. It is not, we admit, one of the most fortunate of the designs of its author, being not only without a skyline, but having also the air of a building to which the roof has not yet been added rather than of a building which was designed to be complete without a visible roof. How much more effective in this respect is the McKinley High School, in which the absence of a simple roof is cleverly compensated by the framed arcades of the parapet.

McKINLEY HIGH SCHOOL—DETAIL OF ENTRANCE TOWER. ST. LOUIS, MO.
St. Louis, Mo. W. B. Ittner, Architect.

Apart from the central pavilion containing the entrance the Teachers' College is but a bald factory, upon the appearance of which it might be supposed that the designer had never wasted a thought. And the effect of the entrance pavilion is in great part lost by the lack of a more vigorous projection, and also, as the photograph of the detail shows, by the lack of some little flank of curtain wall before the occurrence of the sash frame. But after all a main explanation of its want of effect in comparison with others of the series is its greater height in proportion to its expanse. The Shepard School, the Clark School, the Hemstead School, the Cote Brilliante School differ considerably among themselves, although all variants of a single essential scheme. But they all have the advantage over the Teachers' College of a lowness which emphasizes their horizontal expansion, and it is in this that their common architectural advantage mainly consists. It consists also in the fact that each of them has a visible roof, and that the visibility of the roof enables and almost compels a greater variety and interest of outline than would otherwise be attainable. One has with some of them, and notably with the Clark School, again to deplore, as in the Teachers' Col-

HEMPSTEAD SCHOOL—ENTRANCE. ST. LOUIS, MO.
St. Louis, Mo. W. B. Ittner, Architect

lege, the lack of a more decided projection of the central pavilion. But in all four one has to acknowledge the existence of a composition, and in the treatment of the terminal gables of the Hemstead, and of the whole frontage of the Cote Brilliante, which seems upon the whole the most successful of the four, an extremely taking composition, with the comparative lowness always counting for much in the attractiveness of the front. In the two cases last named, indeed, the architect seems to have succeeded in circumventing even his primary requirement, his broad and low casements not giving an excess of voids over solids, and not seeming to have been designed under pressure to produce a sash frame.

Another great and indeed inestimable advantage the St. Louis schools enjoy over those of New York doubtless proceeds from the same cause of the less exigent demand for space or the more abundant supply of it. The Western official architect cannot only afford to build lower than the New York official architect, he can also afford himself the luxury of enough ground round about his school house to give it a suitable frame and setting, and to give the building

FRANZ SIGEL SCHOOL—ENTRANCE.

St. Louis, Mo. W. B. Ittner, Architect.

itself a detachment which is particularly desirable, architecturally and practically, for a school building. The New York school has to be pushed forward to the actual "building line" at the edge of the sidewalk.

these photographs with the pictures of one's own local school houses that every New Yorker can see in his mind's eye to be assured what a great advantage this is. It makes less explicable the timidity of the St.

BLOW SCHOOL—ENTRANCE.

St Louis, Mo. W. B. Ittner, Architect.

Indeed, one equally admires and marvels at the liberality of St. Louis in this respect. The foreground is not even a playground. Its careful planting and well kept terraces show that. It is only necessary to compare

Louis architect in not projecting his entrance pavilions vigorously enough to give them their due architectural effect, in those instances in which he has failed to do so. For, after all, the one picturesque feature

which the Procrustean and imposed plan of a school house leaves architects free to create is precisely this. "They have their exits and their entrances," and with them the possibility of effectively relieving, even a box of sash frames, if such a box they are doomed by their conditions to produce. But it will be seen that the St. Louis official architect has found or made other chances. The principal's room, one would say, may often be signalized and made architecturally effective. The projected room of the Patrick Henry School, with its ingenious and structural employment of brickwork, or that over the entrance of the Lafayette School, with its corbelled balcony, affords a good illustration of the manner in which the monotony of a long front can be relieved while the effectiveness of its extent is retained. And the entrances are almost in-

SHEPARD SCHOOL.

St. Louis, Mo. W. B. Ittner, Architect.

variably treated appropriately and well, equally well in a great variety of styles. For one cannot say that the architect seems to be more or less at home in the collegiate Gothic of the entrance to the Wyman, the Hemstead or the McKinley, the "cottage Gothic" of that to the Shepard or the Emerson, the Jacobean garden fronts of the Blow, the Cote Brilliante or the Teachers' College, the Renaisance of the Franz Sigel or the Eliot, or the Colonial of the Clay. It will be agreed that it is a very interesting collection of photographs and indicates an exemplary treatment of school houses, on the part of taxpayers and municipal officials as well as of the actual designer.

LOS ANGELES AND THE BILLBOARDS

The Los Angeles billboard ordinance has been a good deal written about and, as it proves, with much of error and exaggeration. Even here it was stated, on the strength of a widely printed note, that the billboard tax in Los Angeles was bringing $52,000 a year to the city. The "City Billboard Inspector" sends word that it will yield about a tenth of that sum. The billboard ordinance, of which he submits a copy, prohibits any board "more than ten feet in height above the surface of the ground," advertising signs painted on buildings, however, being excepted. It requires written application, with full particulars, for all except the small boards, and then a permit from the Board of Police Commissioners. No billboard, other than those attached to buildings, shall be within twenty feet of the line of any street or other public place. Persons, firms or corporations desiring to carry on the business of bill posting or sign advertising are required to pay a license fee of $50 for the first quarter or unexpired balance thereof; and those already carrying it on pay a quarterly license tax of "one-quarter of a cent per square foot of the superficial area" maintained by them—advertisers of real estate being exempt in making announcements as to real property. The tax seems to have had little or no restraining effect on the billboard business, for the city has at least as many as other cities of its size. It has possibly resulted in the painting of rather more than the usual number of signs on buildings. But the office records at least are very interesting. They are arranged in a card catalogue, each of the several bill posting firms which do business in Los Angeles being represented by a card of different color. These cards are then arranged according to streets, and on each card a neatly made diagram shows the exact location of the board. Other full data is added. In this connection it may be remarked that Los Angeles is unique, probably, among American cities in a prohibition of electric signs across the sidewalk. The gain in the dignity of the city's night aspect is really surprising. The prohibition arose out of the citizens' pride in their ornate and very costly system of lighting the business streets.

PARKS FOR DUBUQUE

The report on the improvement possibilities of Dubuque, Iowa, recently obtained from Charles Mulford Robinson, was secured by a joint committee representative of the Commercial Club, the Federated Women's Club and the Trade and Labor Congress. Unanimity of interest on the part of the community was thus assured. The report had to do mainly with the park needs of the city. These are great because, endowed with a singularly picturesque location on bluffs overlooking the Mississippi River, the town's park possessions consist of only a couple of quares, each a block in extent, and of such character as any town on the prairie might have. Dubuque, in fact, is one of the very few cities of its size in the United States that has not even a park commission. The report, which went into the local possibilities of a park system, and the need for it, with a good deal of thoroughness, aroused so much popular interest that a commission is now about to be secured.

CHURCH IN A THEATER

The new Auditorium at Los Angeles — its completion about a year ago almost removes it from the catalogue of "new" structures in that fast changing city—is one of the most beautiful and notable in the United States. Indeed, the tourist, entering by the broad marble foyer that circles it, and taking a balcony seat at the side commanding a view of the whole house, is likely to think of Paris rather than of America, and with a shock realizes that the West really has "grown up." For a month in the autumn, grand opera held the boards every week day night—as it did last year too—and the months when the program is not grand opera, it is something else, less dignified.

But regularly—whatever the ballets or

other frivolities of the week—when Sundays roll around the big auditorium is thronged again, morning and evening. For above all else, the auditorium is the home of Rev. Dr. Robert J. Burdette's Temple Baptist Church, and as such it is a remarkably interesting ecclesiastical structure. Outwardly, it is not churchly. With its nine or ten many windowed stories, its nearly square area—165 by 175 feet—it is more like a commercial structure, or, in the ornateness of its façade, a hotel. The broad and conspicuous marquise is suggestive of a theatre; and there are in fact three large auditoriums under the one roof, and 150 office rooms, besides committee rooms and various other apartments, so that, being all of these other things which it suggests, it is not strange that modern ecclesiasticism is lost in the shuffle. Still, one day a week it asserts itself within, congregations filling most of the 3,000 seats at two services, and a prayer meeting sanctifying the smaller auditorium with its thousand and fifty seats. The service is dignified, and when the notes of the big organ accompany a couple of thousand voices on a familiar hymn, there is an effect that may well make the straying grand opera goer sit up and take notice.

PATRICK HENRY SCHOOL—ENTRANCE.

St. Louis, Mo. W. B. Ittner, Architect.

The auditorium was built primarily, it is said, for the church, mainly by the pastor's wife, but no one can help the feeling that the church is in the theatre, and not the theatre in the church—the better feeling of the two to have, no doubt. Dr. Burdette, who is a plain little man, is "discovered" in the glare of the footlights to be at "right

St. Louis, Mo. EMERSON SCHOOL. W. B. Ittner, Architect.

center," ensconced in a massive gilt and brocade chair, such as DeWolf Hopper would have graced in a royal role, and the very hassock that you would expect, of gilt and brocade, is under his feet. The stage is set for a church scene, even to stained glass windows at the rear, but you know it is all canvas. The Gothic rail behind which the chorus choir is seated on tiers of seats, may be of wood; but if it is, it was slid in for the occasion. The Sunday the writer was there the organ offertory was the Intermezzo from Cavalleria Rusticana—quite as if, at a moment when Dr. Burdette was not looking, it had dropped down from the ceiling a relic of the night before.

St. Louis, Mo. COTE BRILLIANTE SCHOOL—ENTRANCE. W. B. Ittner, Architect.

HOTEL DECORATION

Of all the poor and weak names that have been given to great hostelries that of Chicago's Auditorium Annex is probably the worst. And now the big Annex is itself getting a big annex to which there seems to be no proper title except Auditorium Annex Addition. It is again a case, judging from descriptions and reckoning of costs, of *filia pulchrior*, and one wonders—with this fact thrust prominently before one—whether after all the whole scheme may not be a Chicago device for imparting an ancestral atmosphere to a new hotel. The traveler is presented a group picture of three generations. To the Chicago Record-Herald Isabel McDougal has contributed a description of the decorations of the new banquet hall. It is a vast and gorgeous Louis XVI. apartment, with a "ceiling strongly reminiscent of the Hotel de Ville of Paris." This ceiling consists of five panels set in massive gold moldings, each panel containing a painting by William D. Leftwich Dodge, relating to the story of Eurydice. Cupids lean over a balustrade at opposite ends, and in the center "boldly foreshortened gods and goddesses" drape themselves over floating clouds. The ribs of the ceiling extend down to a gallery which, with a rail of gilt ironwork runs around the entire hall. To the gallery open four arched doorways in ornate gilded moldings. The wall space between the doors is lavishly ornamented with molded garlands

St. Louis, Mo. CLAY SCHOOL—ENTRANCE. W. B. Ittner, Architect.

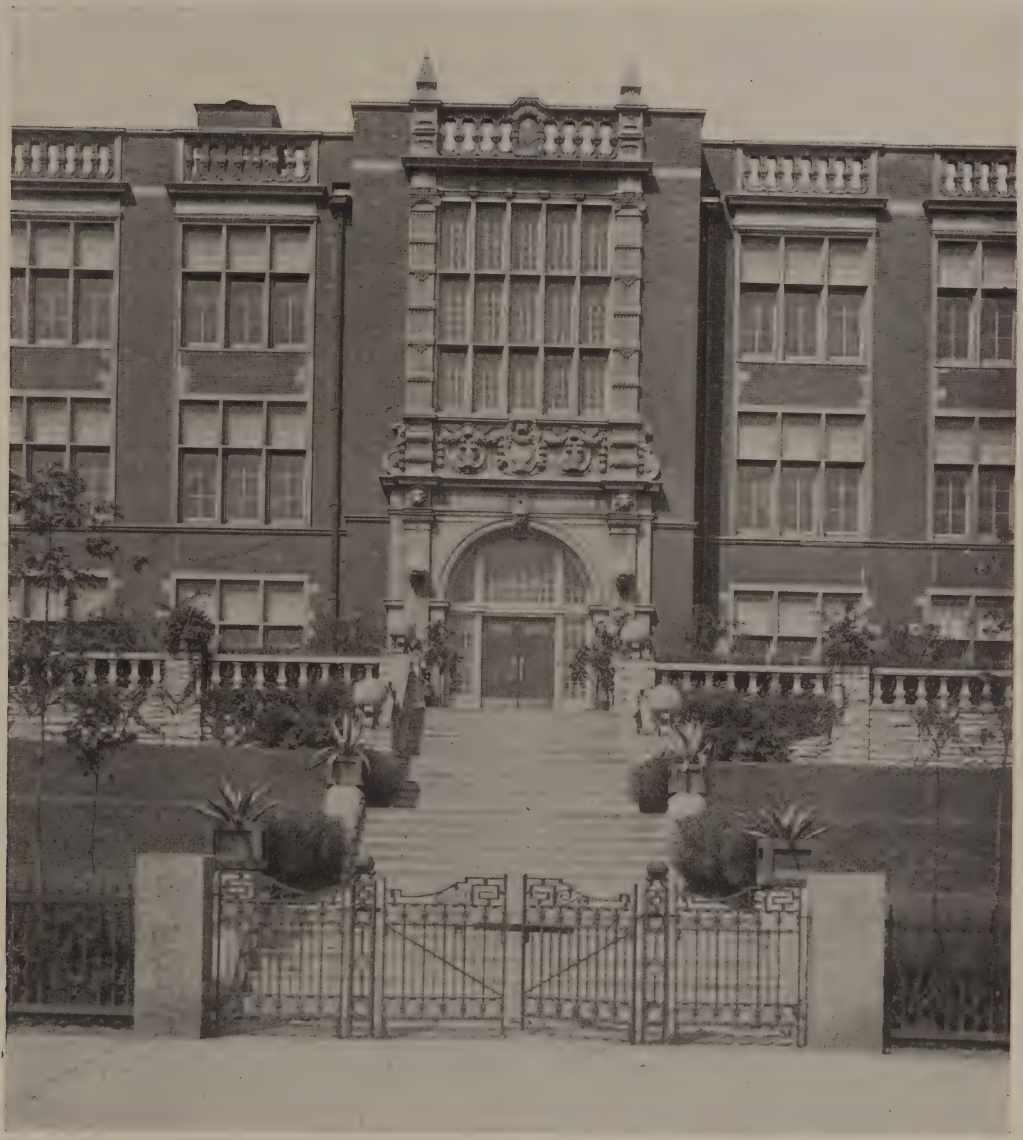
and blue medallions on which float delicately white figures in flying veils and draperies. There is a statue at each corner of the hall, and over the doors in high relief are groups of piping shepherds and listening nymphs. To all of this one must add huge chandeliers, draperies of old rose velvet, glittering side lights and many mirrors. If it "looks like money," it also—we are told—looks like art, which is a none too common combination. Then there is the smaller but ornate adjoining salon, and beyond that the stately Tudor Hall.

It has seemed worth while to note with some detail these decorations, accepting this new hotel as a type of many that have lately been constructed, offering a type of decoration with examples of which—in hostelry, club, apartment house and restaurant—New York is simply bursting. The old song, "I dreamed that I dwelt in marble halls," evidently expresses a common yearning of man,

WYMAN SCHOOL—ENTRANCE.

St. Louis, Mo. W. B. Ittner, Architect.

or more frequently of womankind. Only now, for a comparatively moderate consideration, one actually can dwell for a space in a mahogany chamber, with marble bathroom, and Louis XVI. halls of splendor, and such countless numbers do so dwell as to enrich the builders and proprietors. One is tempted to venture an essay on the historical, psychological and artistic aspects of the situation. It certainly is something new. And it has spread all over the travelling world. It is not alone in the gilded East of golden America—in New York, Philadelphia, Boston, and Washington. Dirty London, gay Paris, modern Berlin, the Swiss resorts, all have something of the sort. The hotel described is in Chicago; but a new hotel in Omaha differs only in size. San Francisco, Los Angeles, Seattle—wherever the trail of the tourist leads, château or palace has arisen. And the curious, even the pitiful thing about it is that they are all



TEACHERS' COLLEGE—ENTRANCE.

St. Louis, Mo. W. B. Ittner, Architect.

just alike. It would seem as if the style must certainly affect our domestic architecture, unless its complete lack of domestic feeling saves us. It is so palpably public, or semi-public, that perhaps the traveling multitudes who are unimaginative do not associate the splendor with their own homes. To most of them, be it noted, train time is the Cinderella stroke of twelve, when all the gaudiness drops away. But they have had their dream, have bought their souvenir postals, and have paid their bills, and maybe they can come again. Meanwhile, it is encouraging to observe that there are enough intelligent persons, who are becoming satiated with a sameness of gilt and rose, to create a profitable demand for the thoroughly comfortable, individual, and even cosy big hotel. That is beginning to give to American architects a new opportunity, which is interesting and really worth while.

THE ARCHITECTURAL LEAGUE OF AMERICA ESTABLISHES INDIVIDUAL MEMBERSHIP

It will be of special interest to architects and architectural draftsmen to learn that the Architectural League of America has established an Individual Membership for persons who are not members of the various clubs of the League but who are interested in the study and promotion of Architecture and the allied arts and professions.

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They are also eligible to compete for the Traveling Scholarship offered by the League, and for Fellowships offered by several universities.

Further information and applications for membership can be secured by communicating with H. S. McAllister, Permanent Secretary, No. 729 15th Street, N. W., Washington, D. C.

REINFORCED CONCRETE CONSTRUCTION*

The interest that now exists in the engineering and architectural professions in regard to reinforced concrete construction gives to this volume, in an unusual degree, the value of timeliness. The authors say that they have endeavored to cover, in a systematic manner, those principles of mechanics underlying the design of reinforced concrete, to present the results of all available tests that may aid in establishing coefficients and working stresses, and to give such illustrative material from actual designs as may be needed to make clear the principles involved. This program has been carried out remarkably well. We have gone carefully through the work and have no hesitation in recommending it, especially to the busy man who wants to get quickly at well digested "results." The architect will be particularly pleased with the analytical treatment of the arch with diagrams, and the other tables and diagrams that are brought together in Chapter IV. The book is well printed, the diagrams are carefully made with thoroughly legible lettering (a merit frequently lacking), and is provided with an index which we think could have been expanded somewhat with advantage.

*Principles of Reinforced Concrete Construction, by F. E. Turneaure and E. R. Maurer, published by John Wiley & Sons, New York, and Chapman & Hall, Limited, London.

SAINT GAUDENS BY ROYAL CORTISSOZ*

By the death last summer of Augustus Saint Gaudens America lost one of her greatest sculptors and the world one of its finest artistic minds. So distinguished a figure in contemporary art was deserving of prompt and fitting commemoration, and the object of this notice is to call attention to the delicate treatment which he has received at the hands of Mr. Royal Cortissoz, the art critic who can justly claim a knowledge of the man, having enjoyed for many years an intimate friendship with the great sculptor. "Saint Gaudens was," says Cortissoz, "not only our greatest sculptor, but the first to break with the old epoch of insipid ideas and hidebound academic notions of style, giving the art a new lease of life, and fixing a new standard." The book as a whole is a commendable piece of critical and biographical prose.

The twenty-four illustrations in photogravure are fine, being the first attempt to bring together a complete series of Saint Gaudens' work. In appearance the book is an attractive tall quarto handsomely printed.

The house of Mr. Edward L. Swift, at Lake Geneva, Wisconsin, which appeared in the December issue, is to be attributed to Messrs. Shepley, Rutan & Coolidge and Mr. H. V. D. Shaw as associated architects, and not solely to the latter, as printed in that issue.

*Augustus Saint Gaudens. By Royal Cortissoz. Illustrated. Houghton, Mifflin and Company, Boston and New York. 1907.

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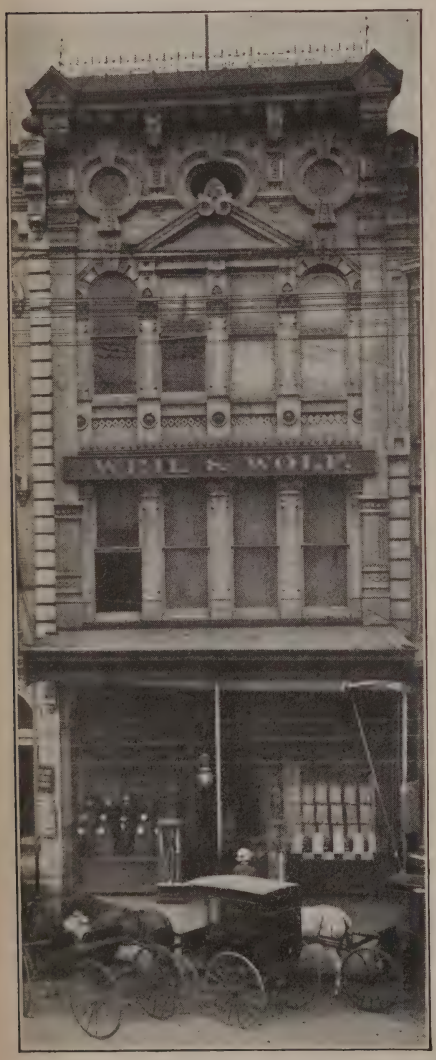

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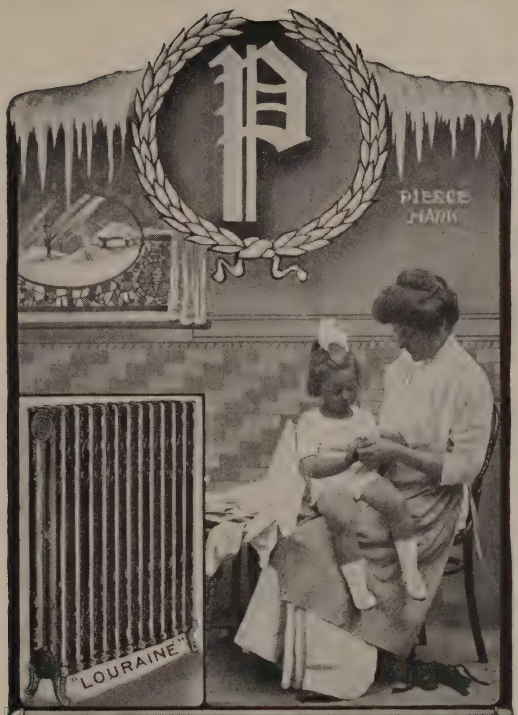

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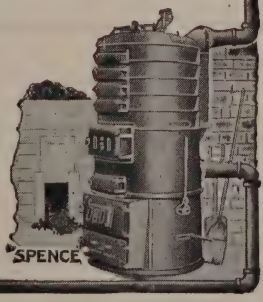

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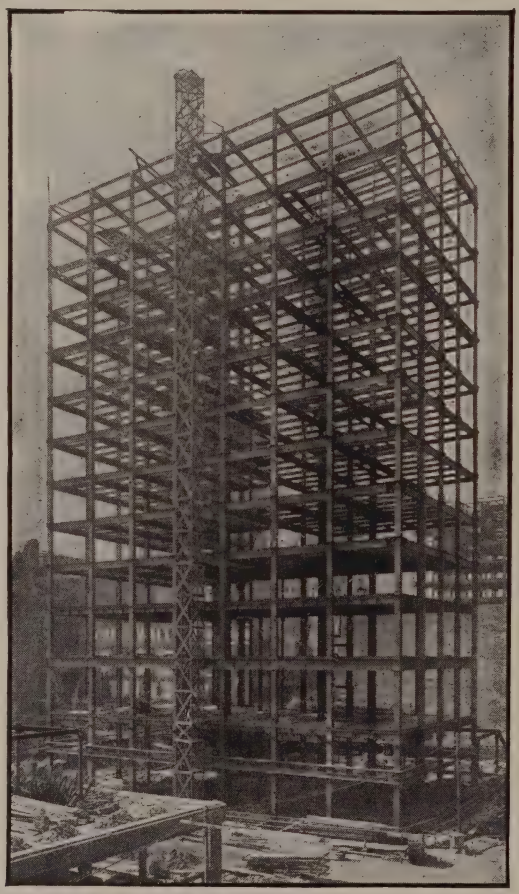

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14

COLLAPSE OF BIG TANK.

A HUNDRED-FOOT STRUCTURE FALLS THROUGH WALL.

Fifteen Thousand Gallons of Water Flood Geo. H. Hees' Factory, in Consequence of Collapse of Supports Under Huge Tank.

With the collapse of a tank containing 15,000 gallons of water yesterday evening at twenty minutes to six about $35,000 damage was done to the factory building and contents of George H. Hees, Son & Co., manufacturers of window shades and upholstery goods, on Pears avenue. The damage is covered by insurance. The tank had but just been completed for the company by the Ontario Wind Engine & Pump Co., and was gradually being filled with water from the main for the first time, there being about 15,000 gallons in it when it fell, this amount equalling a weight of about 75 tons alone. With the tank the total structure towered a hundred feet in the air and the whole seems to have collapsed like a pack of cards. The tank fell away from the factory and was so utterly destroyed that scarcely a single hoop is unbroken. It broke down the yard fence round the house at 262 Davenport road, and of thirty fowls in a coop sixteen were killed. Flying wood broke windows in the same house, and dirty water was spurted everywhere.

The neighborhood felt a shock like that of an earthquake. The only man in the building at the time was James Collins, the watchman. He was on the third story when the tank came down, and the tangled mass of steel ripped through the factory walls not ten feet away from where he stood.

The Yonge street fire brigade was soon on the spot, and the engine started to pump out the ten or twelve feet of water flooding the basement.

"I cannot think," said Mr. Hees to a Globe representative, "that the foundations were faulty; I believe that the steel in the structure must have buckled." A small hole has been punched in the roof on the top story, but the main damage is on the first and second stories, and, of course, to the basement. The work was to cost $3,000.

750,000

OF OUR

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IN

Plaza Hotel

The American Enameled Brick & Tile Company

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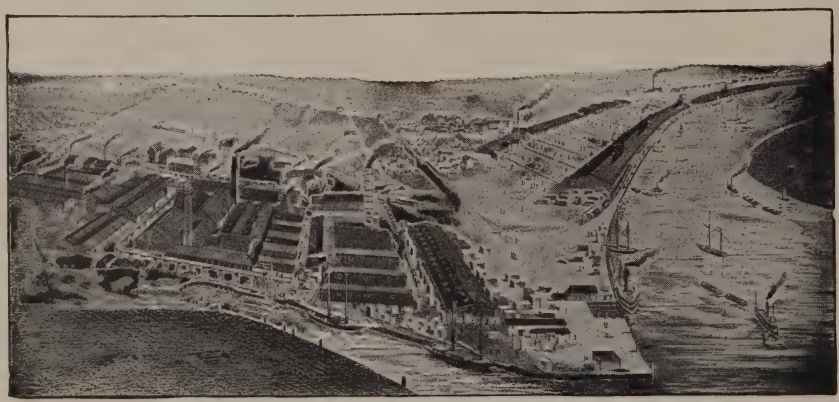
New York City



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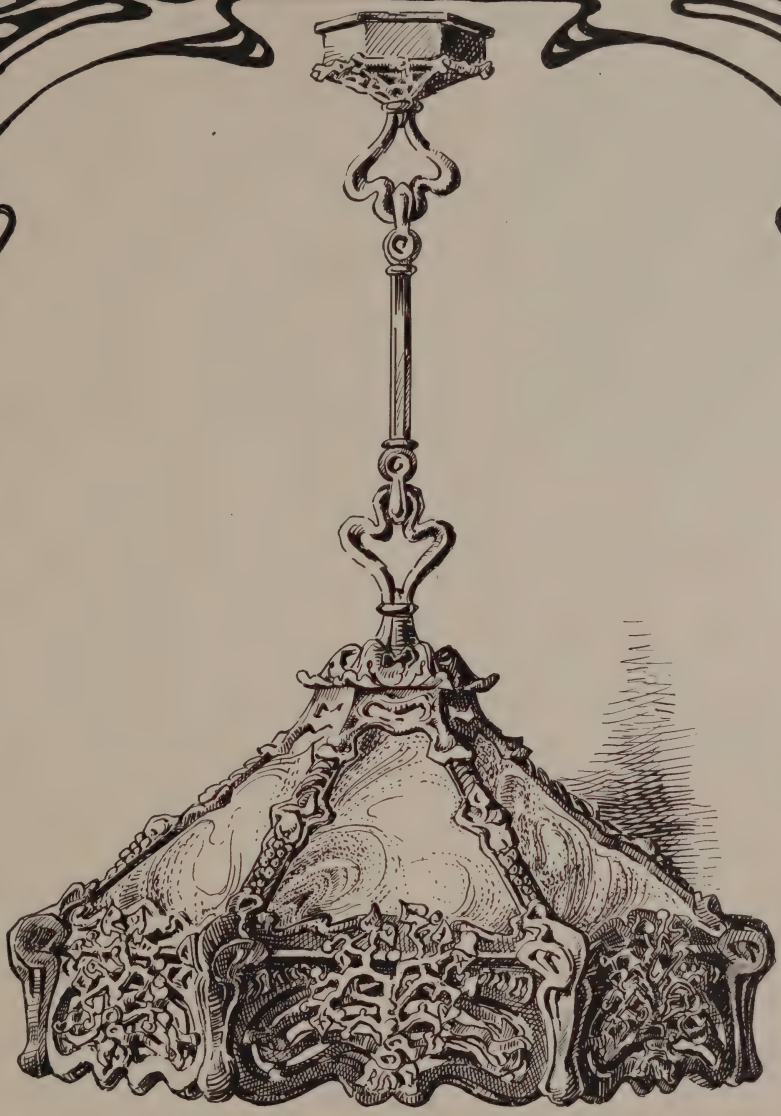

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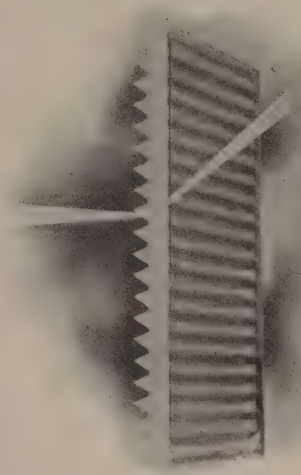
DAYLIGHTING



ARCHITECTS are students, and most of them want to know more about Prism Glass, and how to distinguish the efficient—How to get the maximum amount of light, and why they should specify prisms for all buildings erected for business purposes—*Why they should specify Luxfer Prisms, manufactured by The American Luxfer Prism Company :*

First. Each form is designed to meet a particular requirement. No architect can afford to let prisms go into a building unless so made. Only a specialist can supply these, and no manufacturer is equipped with all necessary scientific instruments and corps of experienced engineers except the Luxfer Company.

Second. Luxfer 4-in. tiles are pressed, and have sharp, accurately cut angles, covering 90 degrees of sky surface. These, when assembled by the Luxfer Company ready for setting, are so arranged as to control the light from any direction, irrespective of shadows, securing the full value of the sky reflection, which cannot be done with an imperfectly designed prism tile or sheet prism.

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DAYLIGHTING

mum light, the architect can secure the best results only by *specifying Luxfer 4-in. tiles, and backing up his specifications.*

Why? The chief aim of certain contractors, after securing a contract, is to substitute something poor or cheap, and risk getting the architect to pass it, not caring whose reputation suffers. Certain jobbing glass houses will do the same, as they prefer to sell glass to daylight, and can make more by substitution.

Why they are successful in some instances in substituting. Occasionally in guessing at an angle, they may increase the light a small per cent. instead of the possible maximum, and the man who pays the money is persuaded to be satisfied, because he does not know the difference. *His only safeguard is the well-informed architect and the honest, reliable manufacturer.* Therefore, specifications which say Luxfer 4-in. tiles manufactured by American Luxfer Prism Company, for store fronts, etc., and Luxfer Sheet for factories and warehouses, insure his receiving *the certain greatest value.*

The market is flooded with all kinds of worthless imitations that are being made by many glass factories without regard to angles or conditions, or any knowledge of the effective use of prisms, merely for the purpose of selling glass for a profit, knowing there is a demand for *prism* glass. Better specify clear glass than put this stuff into your work.

Protect yourself and your client by specifying the kind and make.

The Luxfer is the original, and the only sure method.

Luxfer Products are listed in Sweet's Index, pages 516 to 521, inclusive.

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Open your "Sweet's" to page 61.

OUR BUILDING SERIES

THE NEW GLASS

FOR MODERN PUBLIC AND OFFICE BUILDINGS

"TRUSTEE BLDG.," SEATTLE, WASH.
C. R. ALDRICH, ARCHITECT, SEATTLE.

"The Lighting is fine"

LARGE SINGLE LIGHTS OF OUR

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ARE USED IN THE ABOVE BUILDING. THIS PRISM GLASS IS GROUND AND POLISHED ON ONE SIDE AND IS SOLD IN CUT SIZES UP TO 54" X 72" FOR STORE TRANSOMS AND UPPER SASH OF OFFICE BUILDING WINDOWS—EASILY CLEANED—FEW CORNERS AND NO WIRES.

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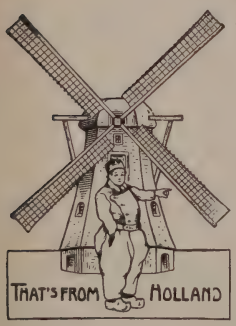

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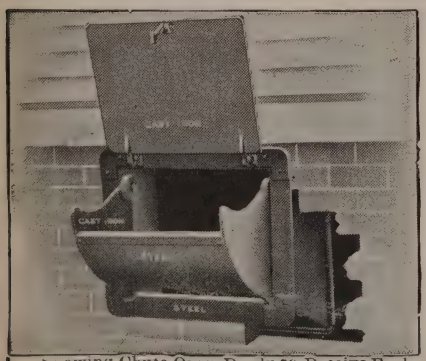

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Shows JUDGMENT and FORETHOUGHT

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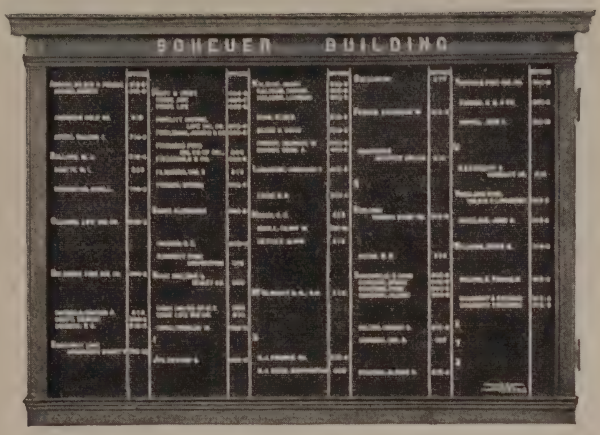

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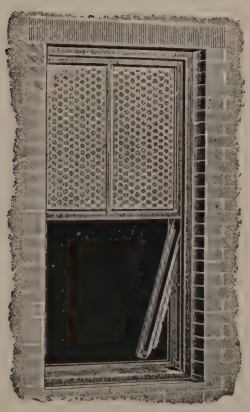

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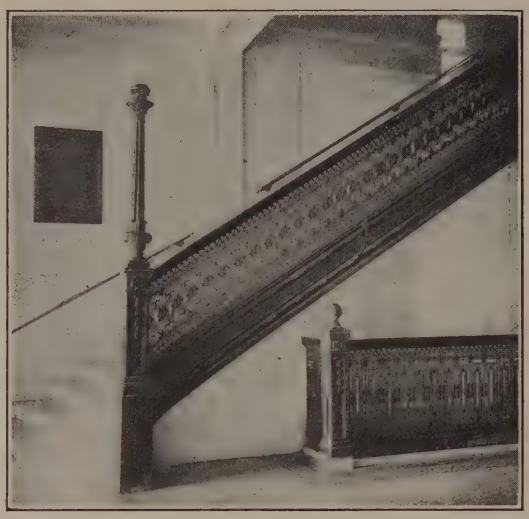

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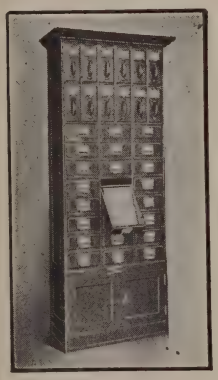

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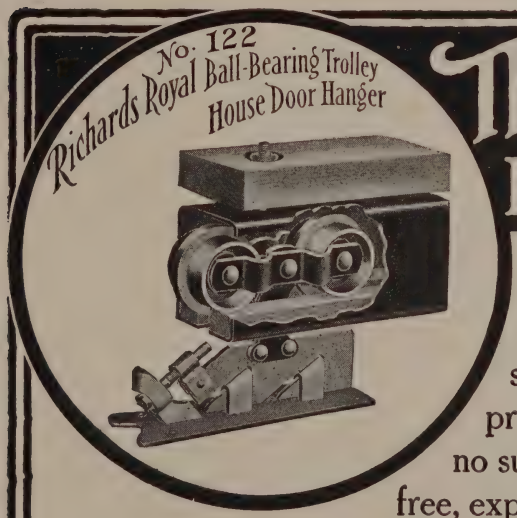

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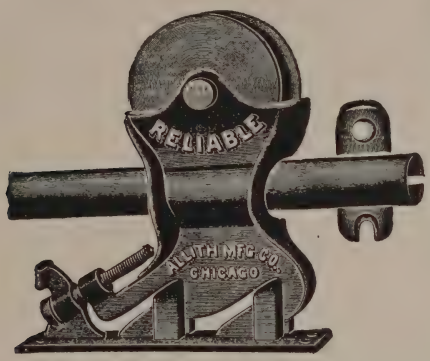
are being specified by the most careful and progressive architects, where silence and smoothness of action are required.

Nine tenths of the hangers in the most important office buildings now being built in New York are **"Reliance Hangers"**



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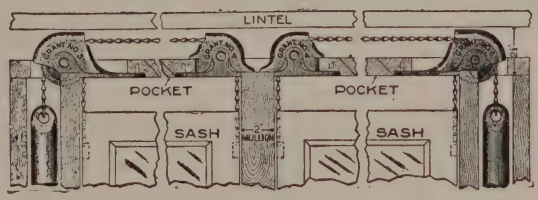

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They are the only drawer slides on the market that are absolutely noiseless. A drawer fitted with the Turner Attachment cannot fall from the case when pulled out suddenly. :: ::

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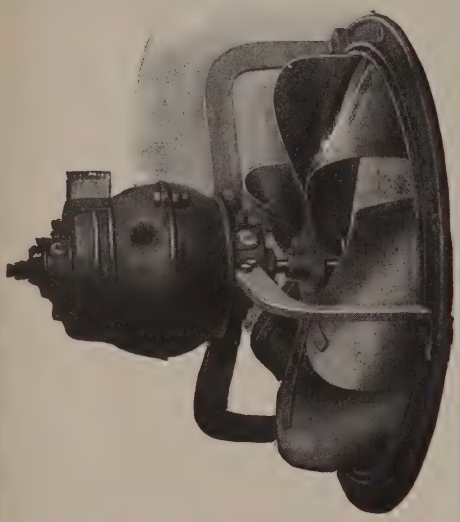

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where the best and most economical ventilating wheels (or fans) were required.

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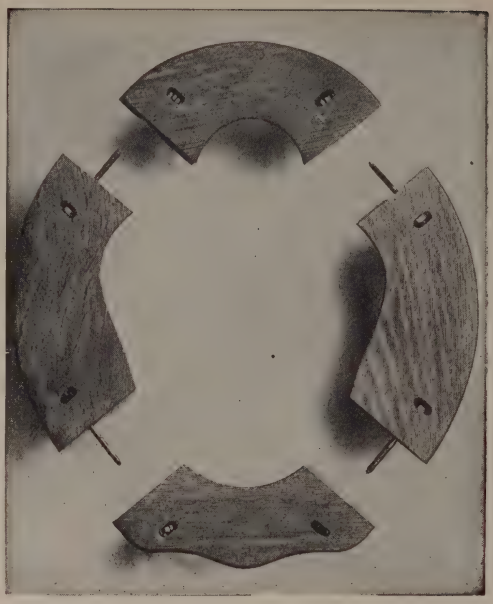

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Every Merritt Locker, while perfect in itself, is but a unit of an indefinite number. Each locker has an individual top, shelf and bottom. All parts are made to gauge, therefore interchangeable. The flexibility of Merritt Lockers permits them to be arranged in groups, in rows or around the side of a room. At the same time they interlock firmly with one another.

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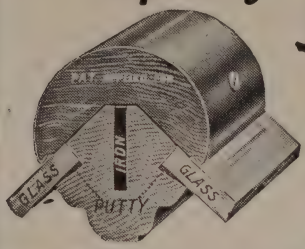
Specify **PETZ** PATENT STORE FRONT CONSTRUCTION

Made in Detroit



Saves time and money in glazing. Glass can be set from the outside and reset without disturbing window display or removing the window enclosure. Lets in every ray of light and gives every inch for display.

Endorsed by Plate Glass Insurance Companies because of its many practical advantages. Made in all finishes—but our book

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tells all about it—gives interesting facts and full size illustrations. Write for a copy.

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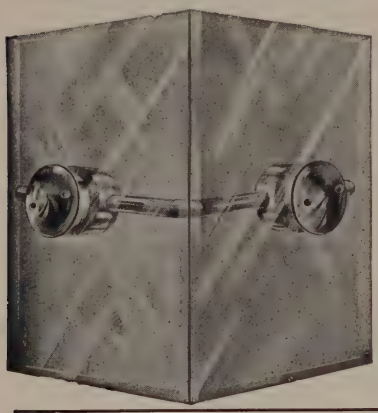

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Neat and trim, and highly finished with heavy nickel plate.

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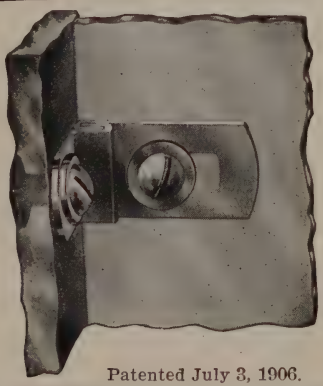

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Interchangeable Safety Clasps

They absolutely prevent breakage of glass under all conditions.

Neat, Durable and Adjustable to All Angles.

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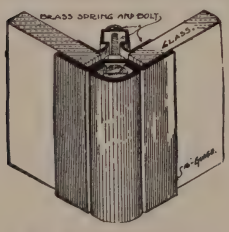

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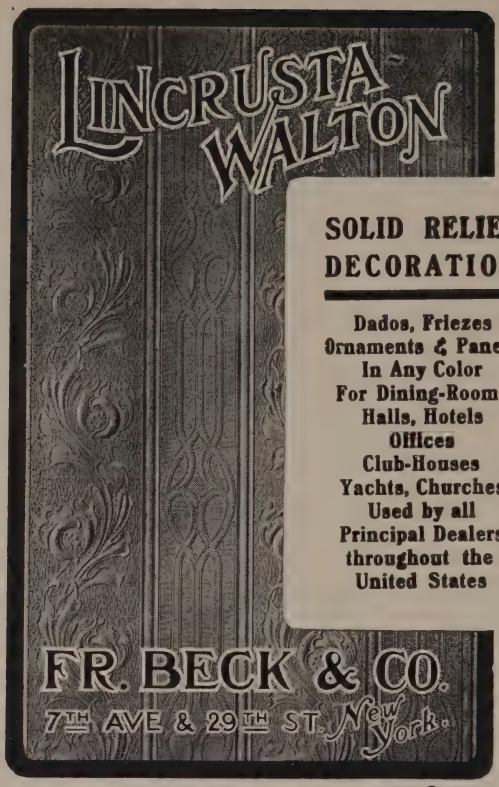

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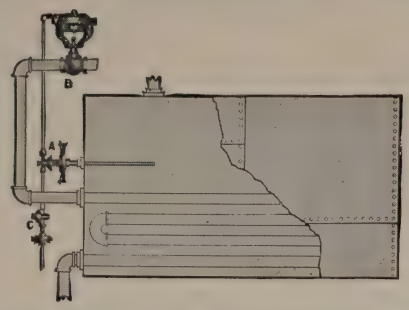
For control of steam heated hot water tanks



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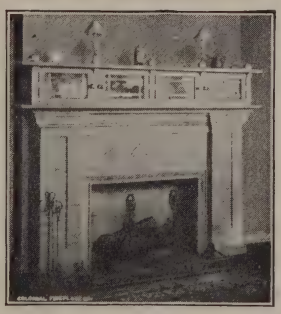

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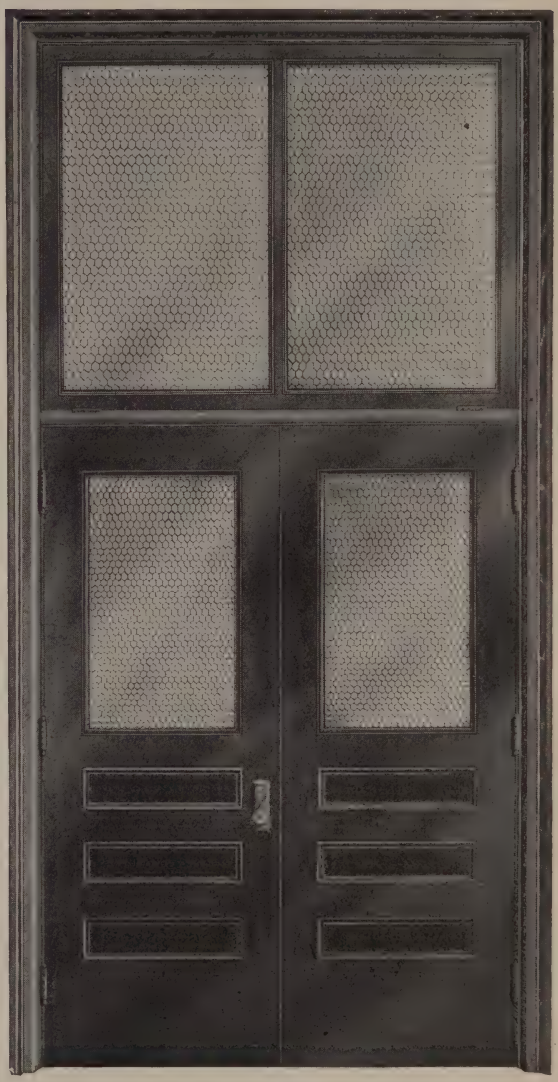

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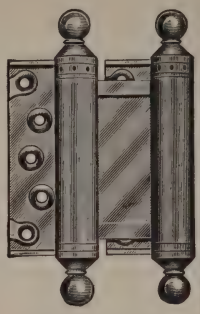

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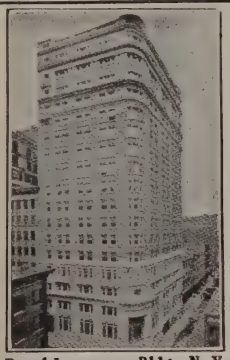

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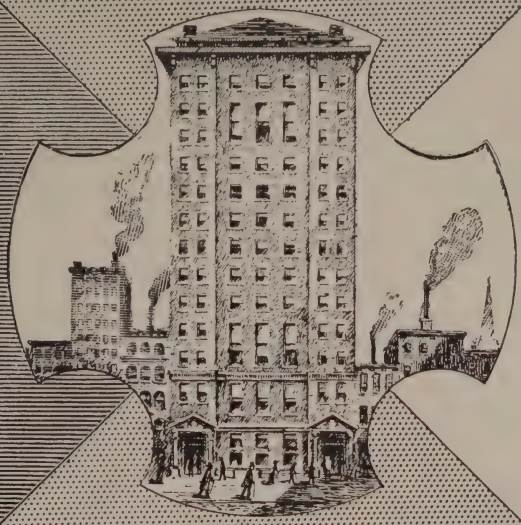

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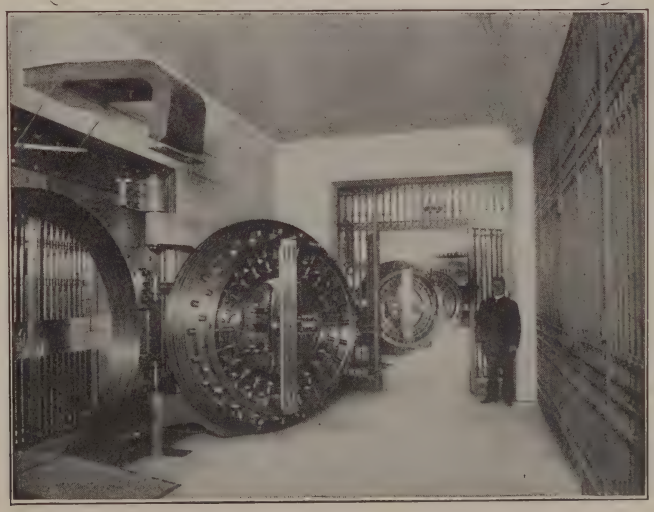

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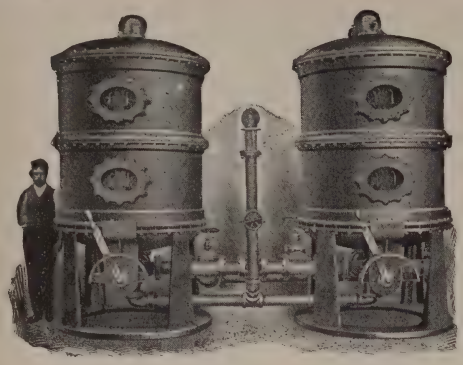

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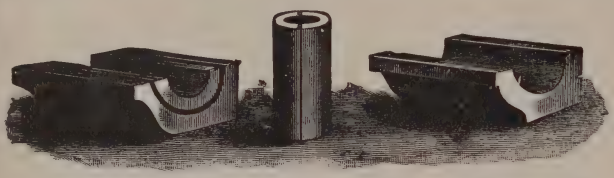

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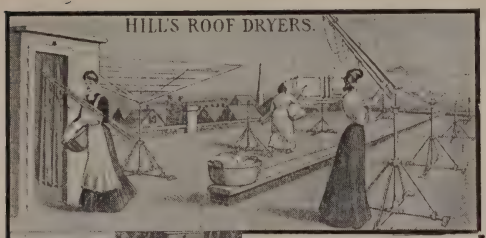

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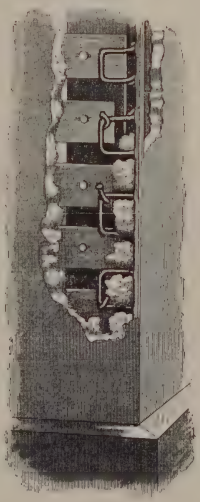

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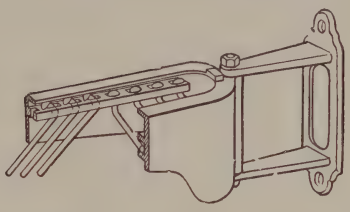

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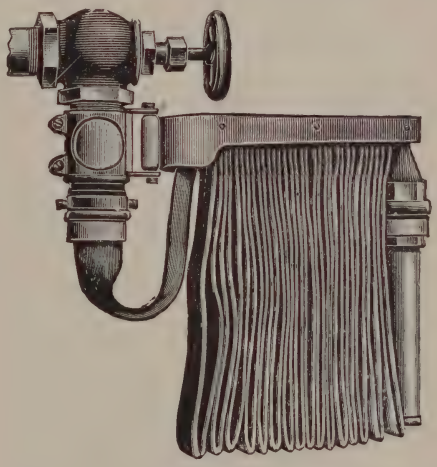

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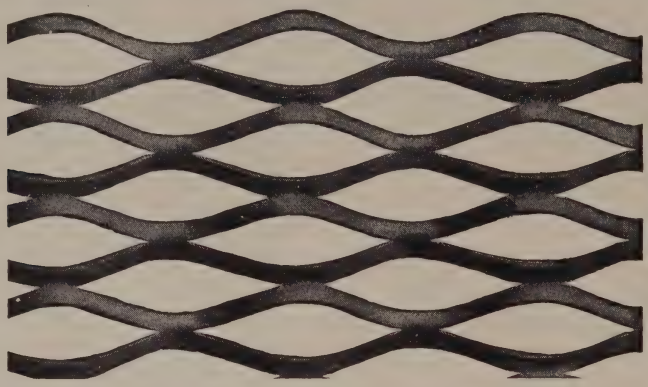

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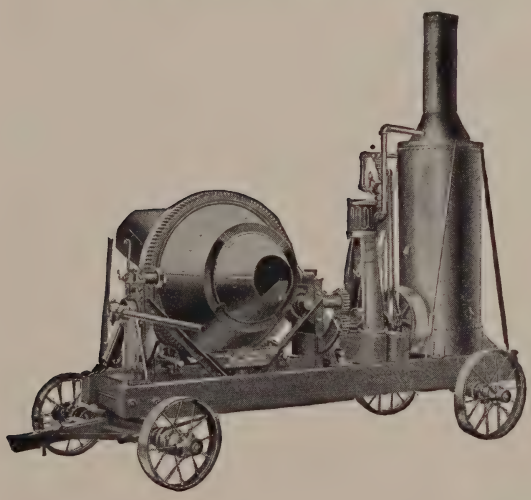

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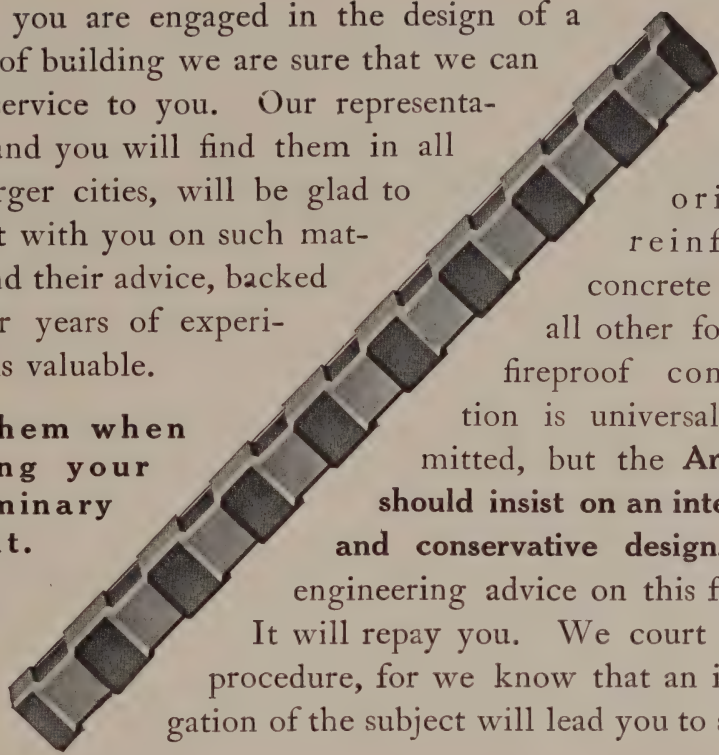

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		Initial	Hard	24 hrs.	7days	28days	7days	28days
Year of 1901	3.148	82.4	326.5	524	713	765	232	313
Year of 1902	3.137	66.6	326.0	444	660	731	201	304
Year of 1903	3.140	64.0	322.0	457	749	797	236	311
Year of 1904	3.157	64.0	346.0	450	716	759	246	336
Year of 1905	3.150	56.0	313.0	446	697	744	252	335
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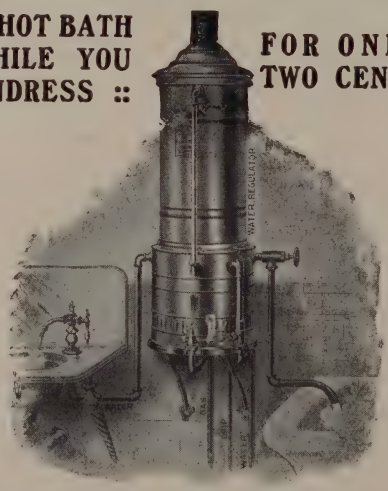

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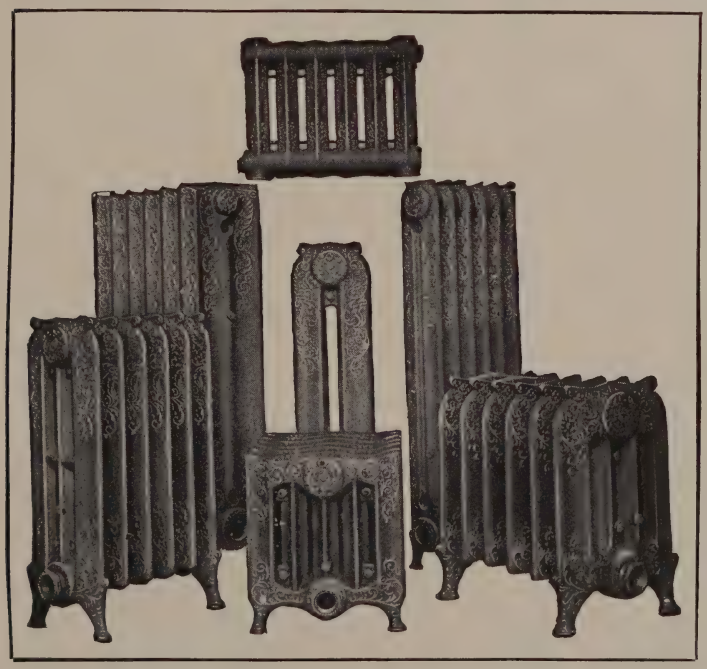

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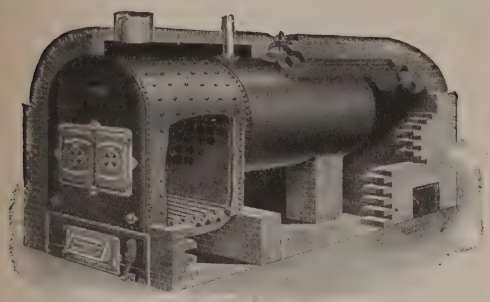

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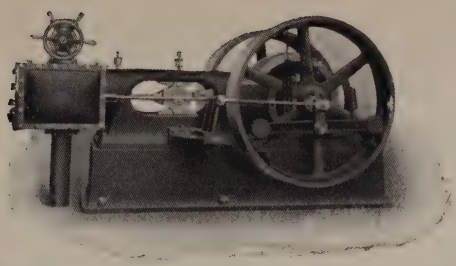

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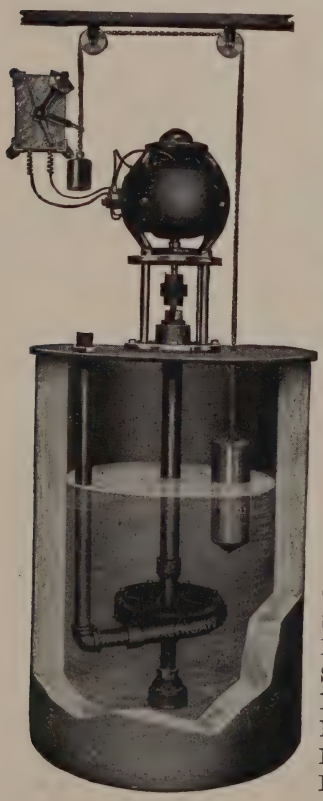

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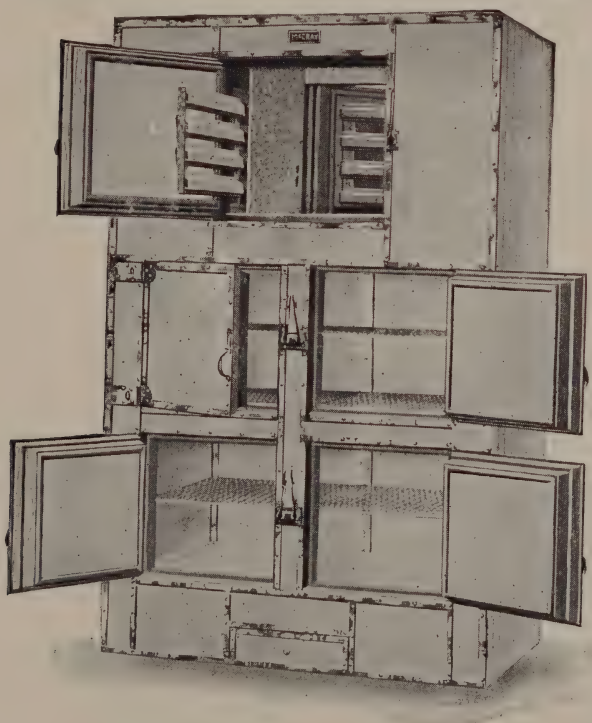

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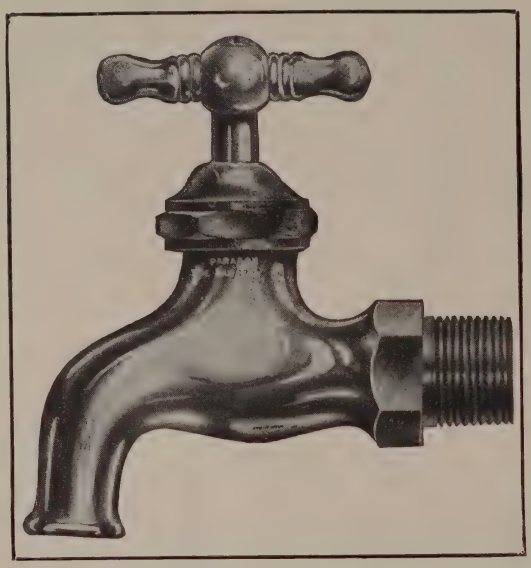

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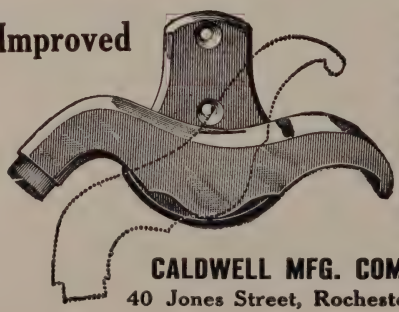

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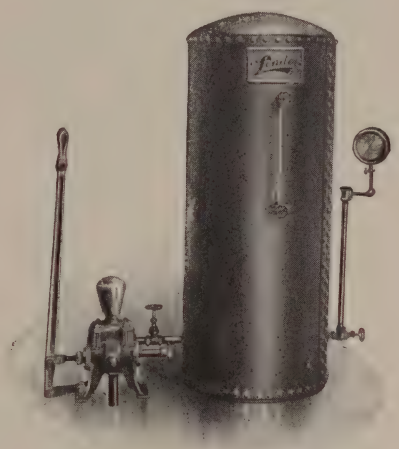

Figure 26

Fig. 26 illustrates our Leader Water Works outfit suitable for a medium sized residence. This outfit requires but little space and is a favorite size for supplying water to kitchen, laundry and bath room. The pump is especially designed for pumping both air and water and can be adjusted to pump either air or water. A pump of this type will deliver water from a well or cistern which may be near by or several hundred feet distant, but in no case should the pump be placed more than twenty feet above the level of the water in the well. The tank has a total capacity of 315 gallons, and will deliver 225 gallons of water when pumped to 40 pounds pressure. This outfit is a model of simplicity, combining strength with ease of operation. A few minutes' pumping each day is sufficient for ordinary use.

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Don't Weaken Your Concrete Floors

by punching holes in them for the installation of closets. While the ***ARKIN Closet*** is one of the best made for general purposes, it is THE logical solution of the closet question for

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Whatever plumbing specialty we may be advertising, from time to time, architects are requested to remember that the "FEDERAL" line of high grade plumbers' brass goods, because of its quality and completeness, is in a class entirely by itself.

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See SWEET'S INDEX, pages 620, 621

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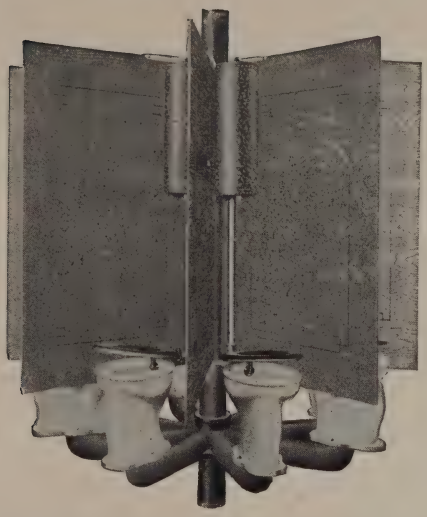
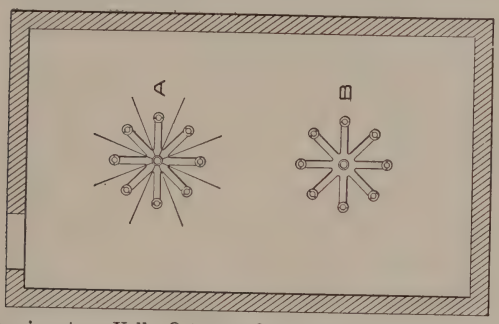
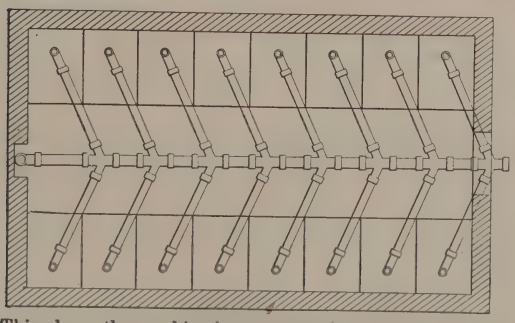


Floor cut away, showing Kelly Octopus closet fitting complete with eight Kelly Automatic Closets, Screens for school or factory installation (no doors).
Kelly Octopus fitting (patents applied for), when set in place, completes the roughing in for eight water closets. Note that this fitting is a one-piece casting.



Showing two Kelly Octopus closet fittings in place, completing the roughing in for 16 water closets in a toilet room. Partition divisions shown in A. Note the absence of joints—no closet over 20 inches from the main soil pipe—no additional venting necessary.



This shows the roughing in necessary for a toilet room containing 16 closets as usually arranged along two opposite walls. Note the number of joints, the amount of material and danger of clogging and leakage at joints in this hidden work. Note also that the nearest closet is 10 feet from the ventilation soil pipe, and the farthest is 30 feet, which necessitates the expensive back venting.

THE Kelly Octopus Fitting revolutionizes the arrangement of the public toilet room. Sanitation is improved, and real ventilation made practical by taking closets away from the walls and arranging them in circles in the middle of the room. The walls are left free for windows, lavatories, or both.

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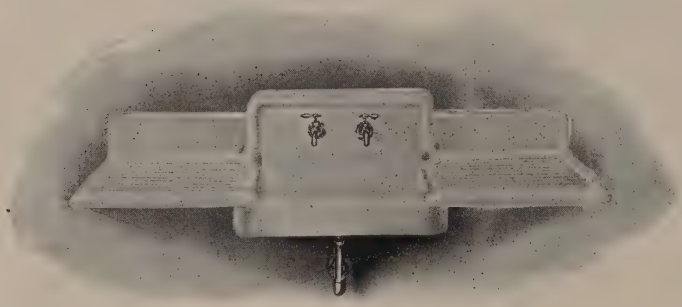

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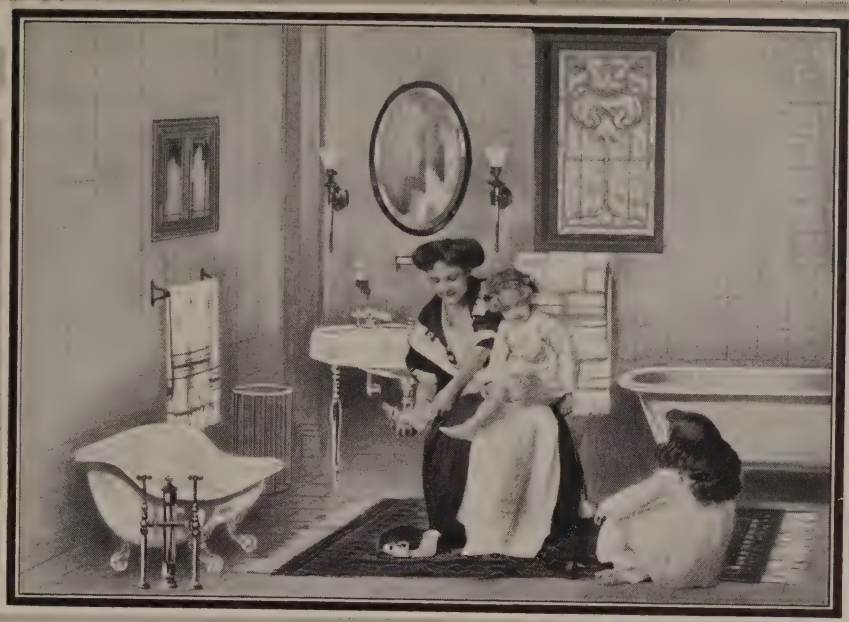

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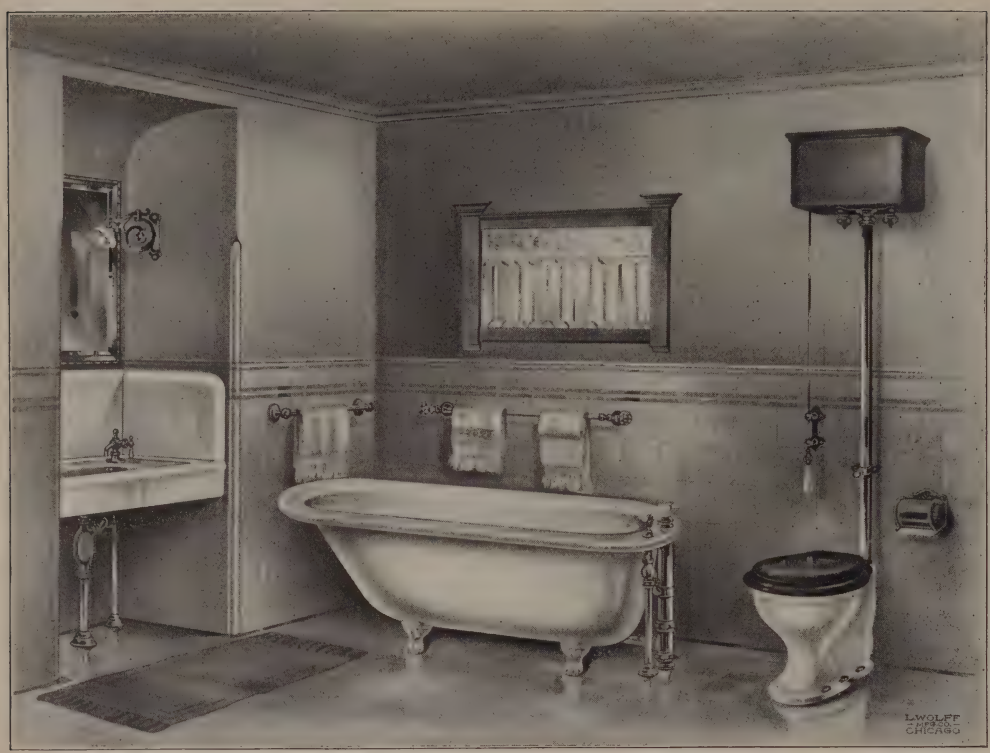

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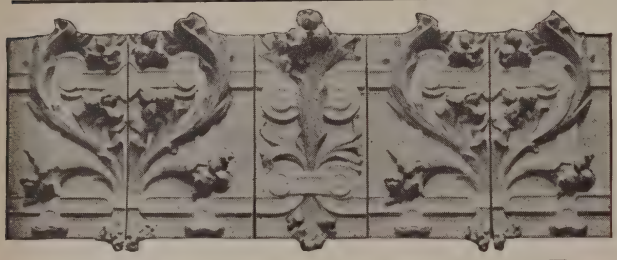

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THE ARCHITECTURAL RECORD

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The
Architectural Record

Vol. XXIII MARCH, 1908. No. 3.

In the Cause of Architecture

The reader of architectural discourses encounters with increasing frequency discussions on American Architecture, Indigenous Architecture. These are generally to the effect that in order to establish a vital architecture in the United States, it is necessary for the architect to sever his literal connection with past performances, to shape his forms to requirements and in a manner consistent with beauty of form as found in Nature, both animate and inanimate. Articles in this strain have appeared, from time to time, in this and in other architectural journals, and have been in most cases too vague in their diction to be well understood, either by the lay reader or the architect.

The sentiment for an American architecture first made itself felt in Chicago twenty years ago. Its earliest manifestation is the acknowledged solution of the tall office building problem. An original phase of that early movement is now presented, in the following article and illustrations, the work of Mr. Frank Lloyd Wright.

—Editors of THE ARCHITECTURAL RECORD.

Radical though it be, the work here illustrated is dedicated to a cause conservative in the best sense of the word. At no point does it involve denial of the elemental law and order inherent in all great architecture; rather, is it a declaration of love for the spirit of that law and order, and a reverential recognition of the elements that made its ancient letter in its time vital and beautiful.

Primarily, Nature furnished the materials for architectural motifs out of which the architectural forms as we know them to-day have been developed, and, although our practice for centuries has been for the most part to turn from her, seeking inspiration in books and adhering slavishly to dead formulae, her wealth of suggestion is inexhaustible; her riches greater than any man's desire. I know with what suspicion the man is regarded who refers matters of fine art back to Nature. I know that it is usually an ill-advised return that is attempted, for Nature in external, obvious aspect is the usually accepted sense of the term and the nature that is reached. But given inherent vision there is no source so fertile, so suggestive, so helpful æsthetically for the architect as a comprehension of natural law. As Nature is never right for a picture so is she never right for the architect—that is, not ready-made. Nevertheless, she has a practical school beneath her more obvious forms in which a sense of proportion may be cultivated, when Vignola and Vitruvius fail as they must always fail. It is there that he may develop that sense of reality that translated to his own field in terms of his own work will lift him far above the realistic in his art; there he will be inspired by sentiment that will never degenerate to sentimentality and he will learn to draw with a surer hand the every-perplexing line between the curious and the beautiful.

A sense of the organic is indispensable to an architect; where can he develop it so surely as in this school? A knowledge of the relations of form and function lies at the root of his practice; where else can he find the pertinent object lessons Nature so readily furnishes? Where can he study the differentiations of form that go to determine character as he can

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study them in the trees? Where can that sense of inevitableness characteristic of a work of art be quickened as it may be by intercourse with nature in this sense?

Japanese art knows this school more intimately than that of any people. In common use in their language there are many words like the word "edaburi," which, translated as near as may be, means the formative arrangement of the branches of a tree. We have no such word in English, we are not yet sufficiently civilized to think in such terms, but the architect must not only learn to think in such terms but he must learn in this school to fashion his vocabulary for himself and furnish it in a comprehensive way with useful words as significant as this one.

For seven years it was my good fortune to be the understudy of a great teacher and a great architect, to my mind the greatest of his time—Mr. Louis H. Sullivan.

Principles are not invented, they are not evolved by one man or one age, but Mr. Sullivan's perception and practice of them amounted to a revelation at a time when they were commercially inexpedient and all but lost to sight in current practice. The fine art sense of the profession was at that time practically dead; only glimmerings were perceptible in the work of Richardson and of Root.

Adler and Sullivan had little time to design residences. The few that were unavoidable fell to my lot outside of office hours. So largely, it remained for me to carry into the field of domestic architecture the battle they had begun in commercial building. During the early years of my own practice I found this lonesome work. Sympathizers of any kind were then few and they were not found among the architects. I well remember how "the message" burned within me, how I longed for comradeship until I began to know the younger men and how welcome was Robert Spencer, and then Myron Hunt, and Dwight Perkins, Arthur Heun, George Dean and Hugh Garden. Inspiring days they were, I am sure, for us all. Of late we have been too busy to see one another often, but the "New School of the Middle West" is beginning to be talked about and perhaps some day it is to be. For why not the same "Life" and blood in architecture that is the essence of all true art?

In 1894, with this text from Carlyle at the top of the page—"The Ideal is within thyself, thy condition is but the stuff thou art to shape that same Ideal out of"—I formulated the following "propositions." I set them down here much as they were written then, although in the light of experience they might be stated more completely and succinctly.

I.—Simplicity and Repose are qualities that measure the true value of any work of art.

But simplicity is not in itself an end nor is it a matter of the side of a barn but rather an entity with a graceful beauty in its integrity from which discord, and all that is meaningless, has been eliminated. A wild flower is truly simple. Therefore:

1. A building should contain as few rooms as will meet the conditions which give it rise and under which we live, and which the architect should strive continually to simplify; then the ensemble of the rooms should be carefully considered that comfort and utility may go hand in hand with beauty. Beside the entry and necessary work rooms there need be but three rooms on the ground floor of any house, living room, dining room and kitchen, with the possible addition of a "social office"; really there need be but one room, the living room with requirements otherwise sequestered from it or screened within it by means of architectural contrivances.

2. Openings should occur as integral features of the structure and form, if possible, its natural ornamentation.

3. An excessive love of detail has ruined more fine things from the standpoint of fine art or fine living than any one human shortcoming—it is hopelessly vulgar. Too many houses, when they are not little stage settings or scene paintings, are mere notion stores, bazaars or junk-shops. Decoration is dangerous unless you understand it

thoroughly and are satisfied that it means something good in the scheme as a whole, for the present you are usually better off without it. Merely that it "looks rich" is no justification for the use of ornament.

4. Appliances or fixtures as such are undesirable. Assimilate them together with all appurtenances into the design of the structure.

5. Pictures deface walls oftener than they decorate them. Pictures should be decorative and incorporated in the general scheme as decoration.

6. The most truly satisfactory apartments are those in which most or all of the furniture is built in as a part of the original scheme considering the whole as an integral unit.

II.—There should be as many kinds (styles) of houses as there are kinds (styles) of people and as many differentiations as there are different individuals. A man who has individuality (and what man lacks it?) has a right to its expression in his own environment.

III.—A building should appear to grow easily from its site and be shaped to harmonize with its surroundings if Nature is manifest there, and if not try to make it as quiet, substantial and organic as She would have been were the opportunity Hers.*

We of the Middle West are living on the prairie. The prairie has a beauty of its own and we should recognize and accentuate this natural beauty, its quiet level. Hence, gently sloping roofs, low proportions, quiet sky lines, suppressed heavy-set chimneys and sheltering overhangs, low terraces and out-reaching walls sequestering private gardens.

IV.—Colors require the same conventionalizing process to make them fit to live with that natural forms do; so go to the woods and fields for color schemes. Use the soft, warm, optimistic tones of earths and autumn leaves in preference to the pessimistic blues, purples or cold greens and grays of the ribbon counter; they are more wholesome and better adapted in most cases to good decoration.

*In this I had in mind the barren town lots devoid of tree or natural incident, town houses and board walks only in evidence.

V.—Bring out the nature of the materials, let their nature intimately into your scheme. Strip the wood of varnish and let it alone—stain it. Develop the natural texture of the plastering and stain it. Reveal the nature of the wood, plaster, brick or stone in your designs; they are all by nature friendly and beautiful. No treatment can be really a matter of fine art when these natural characteristics are, or their nature is, outraged or neglected.

VI.—A house that has character stands a good chance of growing more valuable as it grows older while a house in the prevailing mode, whatever that mode may be, is soon out of fashion, stale and unprofitable.

Buildings like people must first be sincere, must be true and then withal as gracious and lovable as may be.

Above all, integrity. The machine is the normal tool of our civilization, give it work that it can do well—nothing is of greater importance. To do this will be to formulate new industrial ideals, sadly needed.

These propositions are chiefly interesting because for some strange reason they were novel when formulated in the face of conditions hostile to them and because the ideals they phrase have been practically embodied in the buildings that were built to live up to them. The buildings of recent years have not only been true to them, but are in many cases a further development of the simple propositions so positively stated then.

Happily, these ideals are more commonplace now. Then the sky lines of our domestic architecture were fantastic abortions, tortured by features that disrupted the distorted roof surfaces from which attenuated chimneys like lean fingers threatened the sky; the invariably tall interiors were cut up into box-like compartments, the more boxes the finer the house; and "Architecture" chiefly consisted in healing over the edges of the curious collection of holes that had to be cut in the walls for light and air and to permit the occupant to get in or out. These interiors were always slaughtered with the butt and slash of the old plinth and corner block trim, of dubious origin,

and finally smothered with horrible millinery.

That individuality in a building was possible for each home maker, or desirable, seemed at that time to rise to the dignity of an idea. Even cultured men and women care so little for the spiritual integrity of their environment; except in rare cases they are not touched, they simply do not care for the matter so long as their dwellings are fashionable or as good as those of their neighbors and keep them dry and warm. A structure has no more meaning to them æsthetically than has the stable to the horse. And this came to me in the early years as a definite discouragement. There are exceptions, and I found them chiefly among American men of business with unspoiled instincts and untainted ideals. A man of this type usually has the faculty of judging for himself. He has rather liked the "idea" and much of the encouragement this work receives comes straight from him because the "common sense" of the thing appeals to him. While the "cultured" are still content with their small châteaux, Colonial wedding cakes, English affectations or French millinery, he prefers a poor thing but his own. He errs on the side of character, at least, and when the test of time has tried his country's development architecturally, he will have contributed his quota, small enough in the final outcome though it be; he will be regarded as a true conservator.

In the hope that some day America may live her own life in her own buildings, in her own way, that is, that we may make the best of what we have for what it honestly is or may become, I have endeavored in this work to establish a harmonious relationship between ground plan and elevation of these buildings, considering the one as a solution and the other an expression of the conditions of a problem of which the whole is a project. I have tried to establish an organic integrity to begin with, forming the basis for the subsequent working out of a significant grammatical expression and making the whole, as nearly as I could, consistent.

What quality of style the buildings may possess is due to the artistry with which the conventionalization as a solution and an artistic expression of a specific problem within these limitations has been handled. The types are largely a matter of personal taste and may have much or little to do with the American architecture for which we hope.

From the beginning of my practice the question uppermost in my mind has been not "what style" but "what is style?" and it is my belief that the chief value of the work illustrated here will be found in the fact that if in the face of our present day conditions any given type may be treated independently and imbued with the quality of style, then a truly noble architecture is a definite possibility, so soon as Americans really demand it of the architects of the rising generation.

I do not believe we will ever again have the uniformity of type which has characterized the so-called great "styles." Conditions have changed; our ideal is Democracy, the highest possible expression of the individual as a unit not inconsistent with a harmonious whole. The average of human intelligence rises steadily, and as the individual unit grows more and more to be trusted we will have an architecture with richer variety in unity than has ever arisen before; but the forms must be born out of our changed conditions, they must be *true* forms, otherwise the best that tradition has to offer is only an inglorious masquerade, devoid of vital significance or true spiritual value. . . .

The trials of the early days were many and at this distance picturesque. Workmen seldom like to think, especially if there is financial risk entailed; at your peril do you disturb their established processes mental or technical. To do anything in an unusual, even if in a better and simpler way, is to complicate the situation at once. Simple things at that time in any industrial field were nowhere at hand. A piece of wood without a moulding was an anomaly; a plain wooden slat instead of a turned baluster a joke; the omission of the merchantable "grille" a crime; plain fabrics for hangings or floor covering were nowhere to be found in stock.

To become the recognized enemy of

the established industrial order was no light matter, for soon whenever a set of my drawings was presented to a Chicago mill-man for figures he would willingly enough unroll it, read the architect's name, shake his head and return it with the remark that he was "not hunting for trouble"; sagacious owners and general contractors tried cutting out the name, but in vain, his perspicacity was rat-like, he had come to know "the look of the thing." So, in addition to the special preparation in any case necessary for every little matter of construction and finishing, special detail drawings were necessary merely to show the things to be left off or not done, and not only studied designs for every part had to be made but quantity surveys and schedules of mill work furnished the contractors beside. This, in a year or two, brought the architect face to face with the fact that the fee for his service "established" by the American Institute of Architects was intended for something stock and shop, for it would not even pay for the bare drawings necessary for conscientious work.

The relation of the architect to the economic and industrial movement of his time, in any fine art sense, is still an affair so sadly out of joint that no one may easily reconcile it. All agree that something has gone wrong and except the architect be a plain factory magnate, who has reduced his art to a philosophy of old clothes and sells misfit or made-over-ready-to-wear garments with commercial aplomb and social distinction, he cannot succeed on the present basis established by common practice. So, in addition to a situation already complicated for them, a necessarily increased fee stared in the face the clients who dared. But some did dare, as the illustrations prove.

The struggle then was and still is to make "good architecture," "good business." It is perhaps significant that in the beginning it was very difficult to secure a building loan on any terms upon one of these houses, now it is easy to secure a better loan than ordinary; but how far success has attended this ambition the owners of these buildings alone can testify. Their trials have been many, but each, I think, feels that he has as much house for his money as any of his neighbors, with something in the home intrinsically valuable besides, which will not be out of fashion in one lifetime, and which contributes steadily to his dignity and his pleasure as an individual.

It would not be useful to dwell further upon difficulties encountered, for it is the common story of simple progression everywhere in any field; I merely wish to trace here the "motif" behind the types. A study of the illustrations will show that the buildings presented fall readily into three groups having a family resemblance; the low-pitched hip roofs, heaped together in pyramidal fashion, or presenting quiet, unbroken skylines; the low roofs with simple pediments countering on long ridges; and those topped with a simple slab. Of the first type, the Winslow, Henderson, Willits, Thomas, Heurtley, Heath, Cheney, Martin, Little, Gridley, Millard, Tomek, Coonley and Westcott houses, the Hillside Home School and the Pettit Memorial Chapel are typical. Of the second type the Bradley, Hickox, Davenport and Dana houses are typical. Of the third, Atelier for Richard Bock, Unity Church, the concrete house of the Ladies' Home Journal and other designs in process of execution. The Larkin Building is a simple, dignified utterance of a plain, utilitarian type with sheer brick walls and simple stone copings. The studio is merely an early experiment in "articulation."

Photographs do not adequately present these subjects. A building has a presence as has a person that defies the photographer, and the color so necessary to the complete expression of the form is necessarily lacking, but it will be noticed that all the structures stand upon their foundations to the eye as well as physically. There is good, substantial preparation at the ground for all the buildings and it is the first grammatical expression of all the types. This preparation, or watertable, is to these buildings what the stylobate was to the ancient Greek temple. To gain it, it was necessary to reverse the established practice of setting the supports of the building to the outside of the wall and to set them to the inside, so as to leave

the necessary support for the outer base. This was natural enough and good enough construction but many an owner was disturbed by private information from the practical contractor to the effect that he would have his whole house in the cellar if he submitted to it. This was at the time a marked innovation though the most natural thing in the world and to me, to this day, indispensable.

With this innovation established, one horizontal stripe of raw material, the foundation wall above ground, was eliminated and the complete grammar of type one made possible. A simple, unbroken wall surface from foot to level of second story sill was thus secured, a change of material occuring at that point to form the simple frieze that characterizes the earlier buildings. Even this was frequently omitted as in the Francis apartments and many other buildings and the wall was let alone from base to cornice or eaves.

"Dress reform houses" they were called, I remember, by the charitably disposed. What others called them will hardly bear repetition.

As the wall surfaces were thus simplified and emphasized the matter of fenestration became exceedingly difficult and more than ever important, and often I used to gloat over the beautiful buildings I could build if only it were unnecessary to cut holes in them; but the holes were managed at first frankly as in the Winslow house and later as elementary constituents of the structure grouped in rhythmical fashion, so that all the light and air and prospect the most rabid clinet could wish would not be too much from an artistic standpoint; and of this achievement I am proud. The groups are managed, too, whenever required, so that overhanging eaves do not shade them, although the walls are still protected from the weather. Soon the poetry-crushing characteristics of the guillotine window, which was then firmly rooted, became apparent and, single-handed I waged a determined battle for casements swinging out, although it was necessary to have special hardware made for them as there was none to be had this side of England. Clients would come ready to accept any innovation but "those swinging windows," and when told that they were in the nature of the proposition and that they must take them or leave the rest, they frequently employed "the other fellow" to give them something "near," with the "practical" windows dear to their hearts.

With the grammar so far established, came an expression pure and simple, even classic in atmosphere, using that much-abused word in its best sense; implying, that is, a certain sweet reasonableness of form and outline naturally dignified.

I have observed that Nature usually perfects her forms; the individuality of the attribute is seldom sacrified; that is, deformed or mutilated by co-operative parts. She rarely says a thing and tries to take it back at the same time. She would not sanction the "classic" proceeding of, say, establishing an "order," a colonnade, then building walls between the columns of the order reducing them to pilasters, thereafter cutting holes in the wall and pasting on cornices with more pilasters around them, with the result that every form is outraged, the whole an abominable mutilation, as is most of the the architecture of the Renaissance wherein style corrodes style and all the forms are stultified.

In laying out the ground plans for even the more insignificant of these buildings a simple axial law and order and the ordered spacing upon a system of certain structural units definitely established for each structure in accord with its scheme of practical construction and æsthetic proportion, is practiced as an expedient to simplify the technical difficulties of execution, and, although the symmetry may not be obvious always the balance is usually maintained. The plans are as a rule much more articulate than is the school product of the Beaux Arts. The individuality of the various functions of the various features is more highly developed; all the forms are complete in themselves and frequently do duty at the same time from within and without as decorative attributes of the whole. This tendency to greater individuality of the parts emphasized by more and more complete articulation will be seen in the plans

for Unity Church, the cottage for Elizabeth Stone at Glencoe and the Avery Coonly house in process of construction at Riverside, Illinois. Moreover, these ground plans are merely the actual projection of a carefully considered whole. The "architecture" is not "thrown up" as an artistic exercise, a matter of elevation from a preconceived ground plan. The schemes are conceived in three dimensions as organic entities, let the picturesque perspective fall how it will. While a sense of the incidental perspectives the design will develop is always present, I have great faith that if the thing is rightly put together in true organic sense with proportions actually right the picturesque will take care of itself. No man ever built a building worthy the name of architecture who fashioned it in perspective sketch to his taste and then fudged the plan to suit. Such methods produce mere scene-painting. A perspective may be a proof but it is no nurture.

As to the mass values of the buildings the æsthetic principles outlined in proposition III will account in a measure for their character.

In the matter of decoration the tendency has been to indulge it less and less, in many cases merely providing certain architectural preparation for natural foliage or flowers, as it is managed in say, the entrance to the Lawrence house at Springfield. This use of natural foliage and flowers for decoration is carried to quite an extent in all the designs and, although the buildings are complete without this effloresence, they may be said to blossom with the season. What architectural decoration the buildings carry is not only conventionalized to the point where it is quiet and stays as a sure foil for the nature forms from which it is derived and with which it must intimately associate, but it is always *of* the surface, never *on* it.

The windows usually are provided with characteristic straight line patterns absolutely in the flat and usually severe. The nature of the glass is taken into account in these designs as is also the metal bar used in their construction, and most of them are treated as metal "grilles" with glass inserted forming a simple rhythmic arrangement of straight lines and squares made as cunning as possible so long as the result is quiet. The aim is that the designs shall make the best of the technical contrivances that produce them.

In the main the ornamentation is wrought in the warp and woof of the structure. It is constitutional in the best sense and is felt in the conception of the ground plan. To elucidate this element in composition would mean a long story and perhaps a tedious one though to me it is the most fascinating phase of the work, involving the true poetry of conception.

The differentiation of a single, certain simple form characterizes the expression of one building. Quite a different form may serve for another, but from one basic idea all the formal elements of design are in each case derived and held well together in scale and character. The form chosen may flare outward, opening flower-like to the sky as in the Thomas house; another, droop to accentuate artistically the weight of the masses; another be non-committal or abruptly emphatic, or its grammar may be deduced from some plant form that has appealed to me, as certain properties in line and form of the sumach were used in the Lawrence house at Springfield; but in every case the motif is adhered to throughout so that it is not too much to say that each building æsthetically is cut from one piece of goods and consistently hangs together with an integrity impossible otherwise.

In a fine art sense these designs have grown as natural plants grow, the individuality of each is integral and as complete as skill, time, strength and circumstances would permit.

The method in itself does not of necessity produce a beautiful building, but it does provide a framework as a basis which has an organic integrity, susceptible to the architect's imagination and at once opening to him Nature's wealth of artistic suggestion, ensuring him a guiding principle within which he can never be wholly false, out of tune, or lacking in rational motif. The subtleties, the shifting blending harmonies, the ca-

dences, the nuances are a matter of his own nature, his own susceptibilities and faculties.

But self denial is imposed upon the architect to a far greater extent than upon any other member of the fine art family. The temptation to sweeten work, to make each detail in itself lovable and expressive is always great; but that the whole may be truly eloquent of its ultimate function restraint is imperative. To let individual elements arise and shine at the expense of final repose is for the architect, a betrayal of trust for buildings are the background or framework for the human life within their walls and a foil for the nature efflorescence without. So architecture is the most complete of conventionalizations and of all the arts the most subjective except music.

Music may be for the architect ever and always a sympathetic friend whose counsels, precepts and patterns even are available to him and from which he need not fear to draw. But the arts are today all cursed by literature; artists attempt to make literature even of music, usually of painting and sculpture and doubtless would of architecture also, were the art not moribund; but whenever it is done the soul of the thing dies and we have not art but something far less for which the true artist can have neither affection nor respect. . . .

Contrary to the usual supposition this manner of working out a theme is more flexible than any working out in a fixed, historic style can ever be, and the individuality of those concerned may receive more adequate treatment within legitimate limitations. This matter of individuality puzzles many; they suspect that the individuality of the owner and occupant of a building is sacrificed to that of the architect who imposes his own upon Jones, Brown and Smith alike. An architect worthy of the name has an individuality, it is true; his work will and should reflect it, and his buildings will all bear a family resemblance one to another. The individuality of an owner is first manifest in his choice of his architect, the individual to whom he entrusts his characterization. He sympathizes with his work; its expression suits him and this furnishes the common ground upon which client and architect may come together. Then, if the architect is what he ought to be, with his ready technique he conscientiously works for the client, idealizes his client's character and his client's tastes and makes him feel that the building is his as it really is to such an extent that he can truly say that he would rather have his own house than any other he has ever seen. Is a portrait, say by Sargent, any less a revelation of the character of the subject because it bears his stamp and is easily recognized by any one as a Sargent? Does one lose his individuality when it is interpreted sympathetically by one of his own race and time who can know him and his needs intimately and idealize them; or does he gain it only by having adopted or adapted to his condition a ready-made historic style which is the fruit of a seed-time other than his, whatever that style may be?

The present industrial condition is constantly studied in the practical application of these architectural ideals and the treatment simplified and arranged to fit modern processes and to utilize to the best advantage the work of the machine. The furniture takes the clean cut, straight-line forms that the machine can render far better than would be possible by hand. Certain facilities, too, of the machine, which it would be interesting to enlarge upon, are taken advantage of and the nature of the materials is usually revealed in the process.

Nor is the atmosphere of the result in its completeness new and hard. In most of the interiors there will be found a quiet, a simple dignity that we imagine is only to be found in the "old" and it is due to the underlying organic harmony, to the each in all and the all in each throughout. This is the modern opportunity—to make of a building, together with its equipment, appurtenances and environment, an entity which shall constitute a complete work of art, and a work of art more valuable to society as a whole than has before existed because discordant conditions endured for centuries are smoothed away; everyday life here finds an expression germane to its

daily existence; an idealization of the common need sure to be uplifting and helpful in the same sense that pure air to breathe is better than air poisoned with noxious gases.

An artist's limitations are his best friends. The machine is here to stay. It is the forerunner of the democracy that is our dearest hope. There is no more important work before the architect now that to use this normal tool of civilization to the best advantage instead of prostituting it as he has hitherto done in reproducing with murderous ubiquity forms born of other times and other conditions and which it can only serve to destroy.

* * * * * *

The exteriors of these structures will receive less ready recognition perhaps than the interiors and because they are the result of a radically different conception as to what should constitute a building. We have formed a habit of mind concerning architecture to which the expression of most of these exteriors must be a shock, at first more or less disagreeable, and the more so as the habit of mind is more narrowly fixed by so called classic training. Simplicity is not in itself an end; it is a means to an end. Our æsthetics are dyspeptic from incontinent indulgence in "Frenchite" pastry. We crave ornament for the sake of ornament; cover up our faults of design with ornamental sensualities that were a long time ago sensuous ornament. We will do well to distrust this unwholesome and unholy craving and look to the simple line; to the clean though living form and quiet color for a time, until the true significance of these things has dawned for us once more. The old structural forms which up to the present time, have spelled "architecture" are decayed. Their life went from them long ago and new conditions industrially, steel and concrete and terra cotta in particular, are prophesying a more plastic art wherein as the flesh is to our bones so will the covering be to the structure, but more truly and beautifully expressive than ever. But that is a long story. This reticence in the matter of ornamentation is characteristic of these structures and for at least two reasons; first, they are the expression of an idea that the ornamentation of a building should be constitutional, a matter of the nature of the structure beginning with the ground plan. In the buildings themselves, in the sense of the whole, there is lacking neither richness nor incident but their qualities are secured not by applied decoration, they are found in the fashioning of the whole, in which color, too, plays as significant a part as it does in an old Japanese wood block print. Second; because, as before stated, buildings perform their highest function in relation to human life within and the natural efflorescence without; and to develop and maintain the harmony of a true chord between them making of the building in this sense a sure foil for life, broad simple surfaces and highly conventionalized forms are inevitable. These ideals take the buildings out of school and marry them to the ground; make them intimate expressions or revelations of the exteriors; individualize them regardless of preconceived notions of style. I have tried to make their grammar perfect in its way and to give their forms and proportions an integrity that will bear study, although few of them can be intelligently studied apart from their environment. So, what might be termed the democratic character of the exteriors is their first undefined offence—the lack, wholly, of what the professional critic would deem architecture; in fact, most of the critic's architecture has been left out.

There is always a synthetic basis for the features of the various structures, and consequently a constantly accumulating residue of formulae, which becomes more and more useful; but I do not pretend to say that the perception or conception of them was not at first intuitive, or that those that lie yet beyond will not be grasped in the same intuitive way; but, after all, architecture is a scientific art, and the thinking basis will ever be for the architect his surety, the final court in which his imagination sifts his feelings. . . .

The few draughtsmen so far associated with this work have been taken into the draughting room, in every case almost wholly unformed, many of them

with no particular previous training, and patiently nursed for years in the atmosphere of the work itself, until, saturated by intimate association, at an impressionable age, with its motifs and phases, they have become helpful. To develop the sympathetic grasp of detail that is necessary before this point is reached has proved usually a matter of years, with little advantage on the side of the college-trained understudy. These young people have found their way to me through natural sympathy with the work, and have become loyal assistants. The members, so far, all told here and elsewhere, of our little university of fourteen years' standing are: Marion Mahony, a capable assistant for eleven years; William Drummond, for seven years; Francis Byrne, five years; Isabel Roberts, five years; George Willis, four years; Walter Griffin, four years; Andrew Willatzen, three years; Harry Robinson, two years; Charles E. White, Jr., one year; Erwin Barglebaugh and Robert Hardin, each one year; Albert McArthur, entering.

Others have been attracted by what seemed to them to be the novelty of the work, staying only long enough to acquire a smattering of form, then departing to sell a superficial proficiency elsewhere. Still others shortly develop a mastery of the subject, discovering that it is all just as they would have done it, anyway, and, chafing at the unkind fate that forestalled them in its practice, resolve to blaze a trail for themselves without further loss of time. It is urged against the more loyal that they are sacrificing their individuality to that which has dominated this work; but it is too soon to impeach a single understudy on this basis, for, although they will inevitably repeat for years the methods, forms and habit of thought, even the mannerisms of the present work, if there is virtue in the principles behind it that virtue will stay with them through the preliminary stages of their own practice until their own individualities truly develop independently. I have noticed that those who have made the most fuss about their "individuality" in early stages, those who took themselves most seriously in that regard, were inevitably those who had least.

Many elements of Mr. Sullivan's personality in his art—what might be called his mannerisms—naturally enough clung to my work in the early years, and may be readily traced by the casual observer; but for me one real proof of the virtue inherent in this work will lie in the fact that some of the young men and women who have given themselves up to me so faithfully these past years will some day contribute rounded individualities of their own, and forms of their own devising to the new school.

This year I assign to each a project that has been carefully conceived in my own mind, which he accepts as a specific work. He follows its subsequent development through all its phases in drawing room and field, meeting with the client himself on occasion, gaining an all-round development impossible otherwise, and insuring an enthusiasm and a grasp of detail decidedly to the best interest of the client. These privileges in the hands of selfishly ambitious or overconfident assistants would soon wreck such a system; but I can say that among my own boys it has already proved a moderate success, with every prospect of being continued as a settled policy in future.

Nevertheless, I believe that only when one individual forms the concept of the various projects and also determines the character of every detail in the sum total, even to the size and shape of the pieces of glass in the windows, the arrangement and profile of the most insignificant of the architectural members, will that unity be secured which is the soul of the individual work of art. This means that fewer buildings should be entrusted to one architect. His output will of necessity be relatively small—small, that is, as compared to the volume of work turned out in any one of fifty "successful offices" in America. I believe there is no middle course worth considering in the light of the best future of American architecture. With no more propriety can an architect leave the details touching the form of his concept to assistants, no matter how sym-

pathetic and capable they may be, than can a painter entrust the painting in of the details of his picture to a pupil; for an architect who would do individual work must have a technique well developed and peculiar to himself, which, if he is fertile, is still growing with his growth. To keep everything "in place" requires constant care and study in matters that the old-school practitioner would scorn to touch. . . .

As for the future—the work shall grow more truly simple; more expressive with fewer lines, fewer forms; more articulate with less labor; more plastic; more fluent, although more coherent; more organic. It shall grow not only to fit more perfectly the methods and processes that are called upon to produce it, but shall further find whatever is lovely or of good repute in method or process, and idealize it with the cleanest, most virile stroke I can imagine. As understanding and appreciation of life matures and deepens, this work shall prophesy and idealize the character of the individual it is fashioned to serve more intimately, no matter how inexpensive the result must finally be. It shall become in its atmosphere as pure and elevating in its humble way as the trees and flowers are in their perfectly appointed way, for only so can architecture be worthy its high rank as a fine art, or the architect discharge the obligation he assumes to the public—imposed upon him by the nature of his own profession.

Frank Lloyd Wright.

EXHIBIT OF FRANK LLOYD WRIGHT AT THE CHICAGO ARCHITECTURAL CLUB, 1908.

Buffalo, N. Y. THE LARKIN BUILDING.

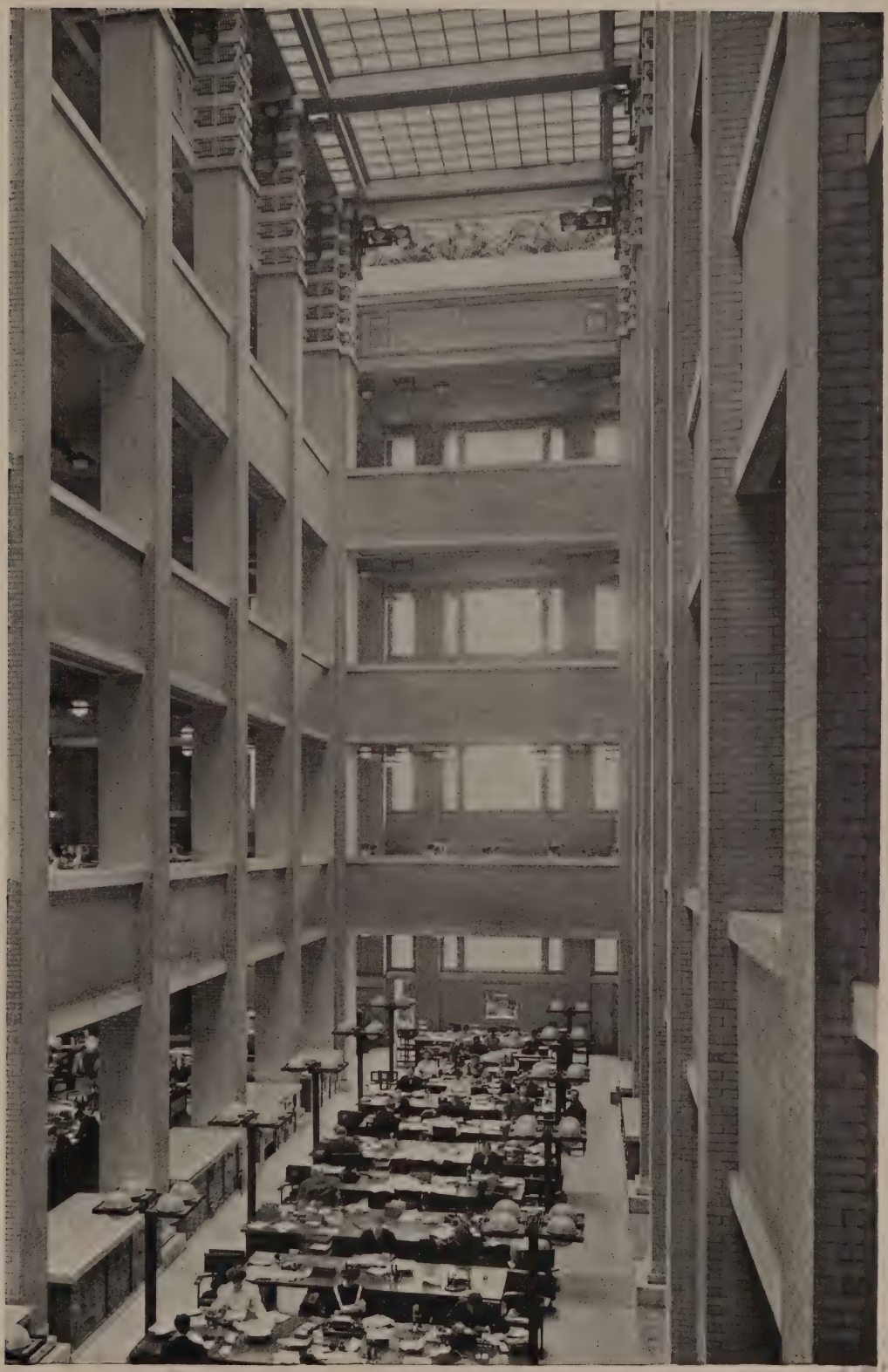
The Larkin Building is one of a large group of factory buildings situated in the factory district of Buffalo. It was built to house the commercial engine of the Larkin Company in light, wholesome, well-ventilated quarters. The smoke, noise and dirt incident to the locality made it imperative that all exterior surfaces be self cleaning and the interior be created independently of this environment. The building is a simple working out of certain utilitarian conditions, its exterior a simple cliff of brick whose only "ornamental" feature is the exterior expression of the central aisle, fashioned by means of the sculptured piers at either end of the main block. The machinery of the various appurtenance systems, pipe shafts incidental thereto, the heating and ventilating air in-takes, and the stairways which serve also as fire escapes, are quartered in plan and placed outside the main building at the four outer corners, so that the entire area might be free for working purposes. These stair chambers are top-lighted. The interior of the main building thus forms a single large room in which the main floors are galleries open to a large central court, which is also lighted from above. All the windows of the various stories or "galleries" are seven feet above the floor, the space beneath being utilized for steel filing cabinets. The window sash are double, and the building practically sealed to dirt, odor and noise, fresh air being taken high above the ground in shafts extending above the roof surfaces. The interior is executed throughout in vitreous,

Buffalo, N. Y. THE LARKIN BUILDING.

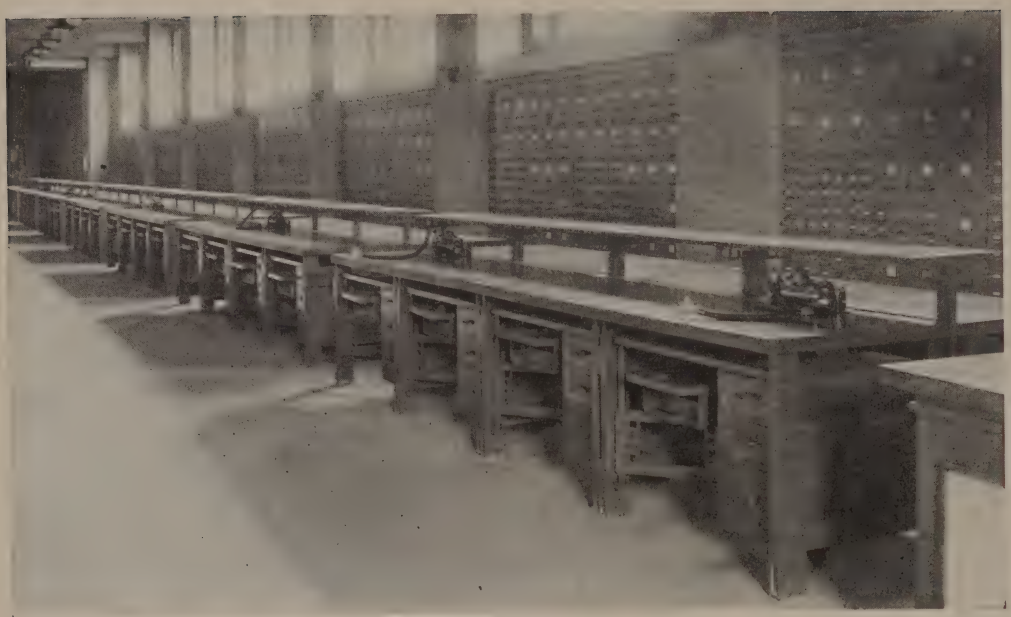
cream-colored brick, with floor and trimmings of "magnesite" of the same color. The various features of this trim were all formed within the building itself by means of simple wooden molds, in most cases being worked directly in place. So the decorative forms were necessarily simple, particularly so as this material becomes very hot while setting and expands slightly in the process. The furnishings and fittings are all of steel and were designed with the structure. The entrance vestibules, from either street and the main lobby, together with the toilet accommodations and rest rooms for employees, are all located in an annex which intercepts the light from the main office as little as possible. The fifth floor is given to a restaurant for employees, with conservatories in mezzanines over kitchen and bakery at either end, opening in turn to the main roof, all of which together constitutes the only recreation ground available for employees. The structure, which is completely fireproof, together with its modern heating, ventilating and appurtenance system, but exclusive of metal fixtures and furnishings, cost but little more than the average high class fireproof factory building—18 cts. per cubic foot. Here again most of the critic's "architecture" has been left out. Therefore the work may have the same claim to consideration as a "work of art" as an ocean liner, a locomotive or a battleship.

LARKIN BUILDING—FOURTH STORY GALLERY.

LARKIN BUILDING—OFFICERS' DESKS—FLOOR OF MAIN COURT.
Buffalo, N. Y.



Buffalo, N. Y. LARKIN BUILDING—CENTRAL COURT.

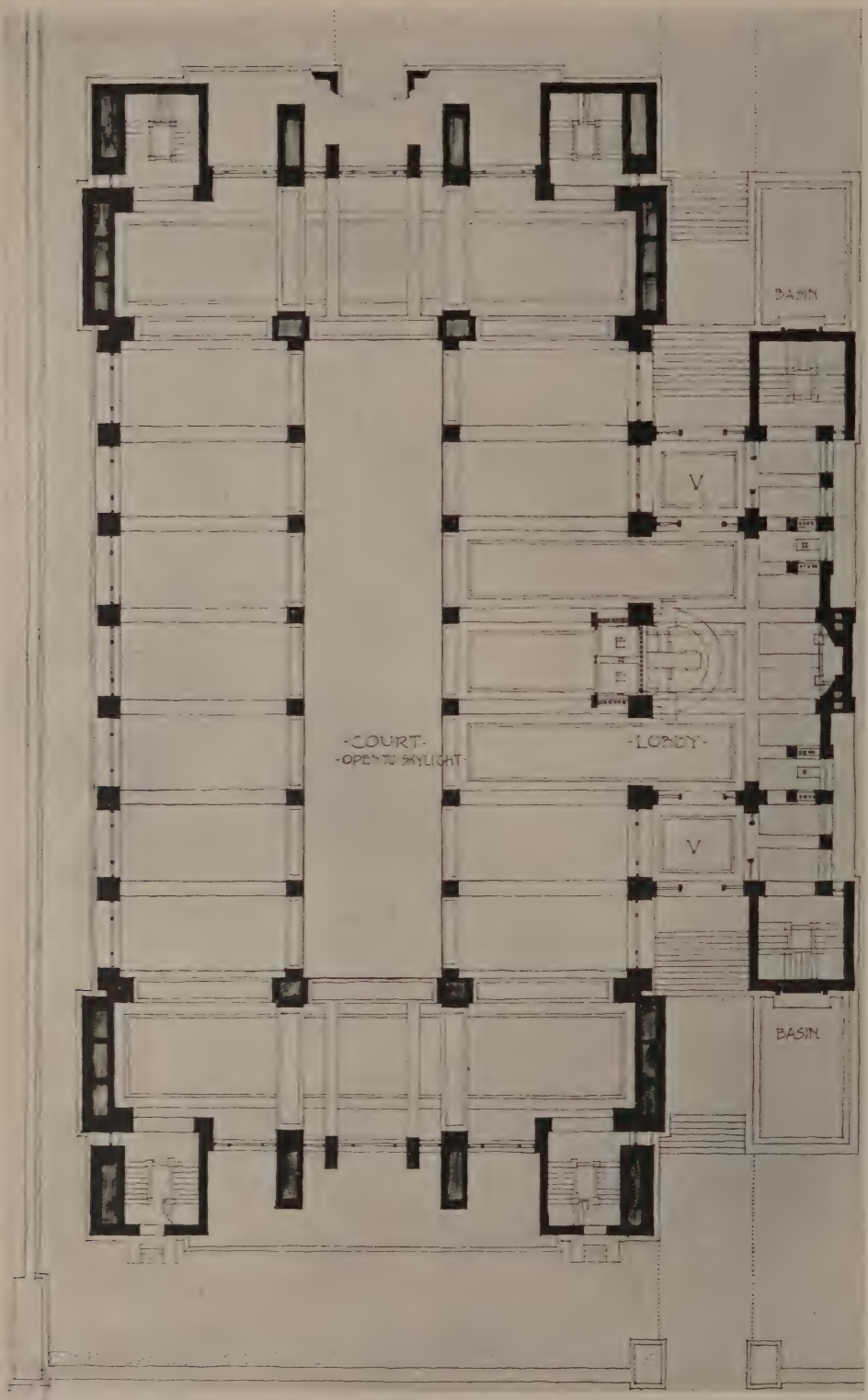


LARKIN BUILDING—METAL FURNITURE CLOSED TO ADMIT OF EASY CLEANING.

Buffalo, N. Y. LARKIN BUILDING—METAL FURNITURE READY FOR USE.

LARKIN BUILDING—TYPICAL GALLERY FLOOR.

LARKIN BUILDING—INFORMATION BUREAU AND TELEPHONE CENTRAL.
Buffalo, N. Y.



Buffalo, N. Y. LARKIN BUILDING—MAIN FLOOR PLAN.

Buffalo, N. Y. THE LARKIN BUILDING—HOUSING AN INDUSTRY.

Springfield, Ill. HOUSE OF MRS. S. L. DANA.

General exterior view shown above. Interior of gallery, library beneath.

A house designed to accommodate the art collection of its owner and for entertaining extensively, somewhat elaborately worked out in detail. Fixtures and furnishings designed with the structure.

HOUSE OF MRS. S. L. DANA—VIEW FROM FOURTH STREET.

DANA HOUSE—DETAIL OF MAIN ENTRANCE, SHOWING VISTA INTO LIVING HALL.

DANA HOUSE—GENERAL VIEW FROM CORNER.

DANA HOUSE—FIREPLACE ALCOVE AT END OF GALLERY. BALCONY ABOVE.

DANA HOUSE—DINING ROOM.

DANA HOUSE—GALLERY AND LIBRARY.

Kankakee, Ill. HICKOX HOUSE.

BREAKFAST NOOK IN THE DANA HOUSE.

B. HARLEY BRADLEY HOUSE—LIVING ROOM.

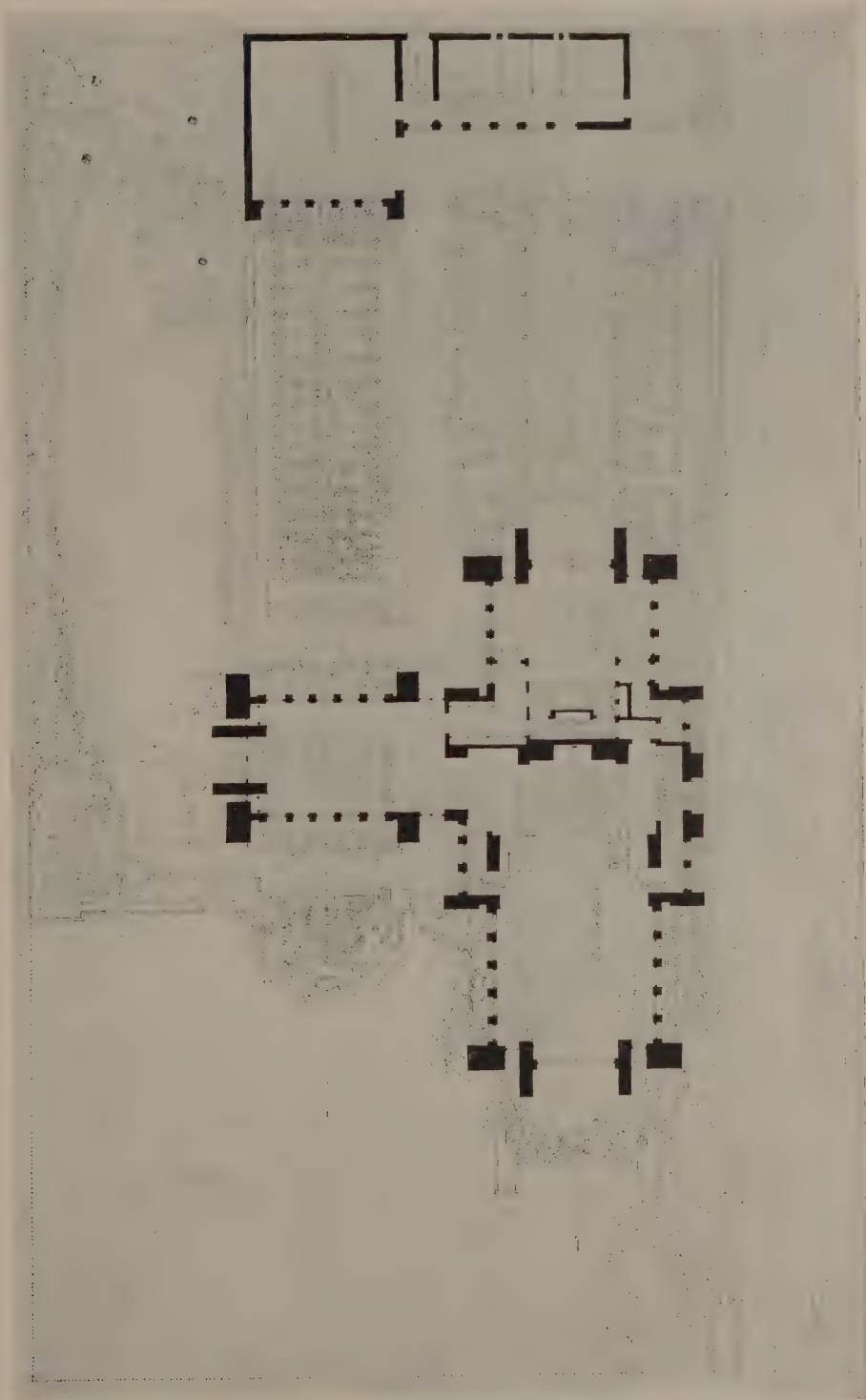
Kankakee, Ill.

Kankakee, Ill. B. HARLEY BRADLEY HOUSE—PLASTERED EXTERIOR.

B. HARLEY BRADLEY HOUSE—LIVING ROOM FIREPLACE.

P. A. BEACHEY HOUSE, OAK PARK, ILL.—BRICK, PLASTER AND TIMBER EXTERIOR.

DINING ROOM OF BRADLEY HOUSE.



Oak Park, Ill. H. J. ULLMAN HOUSE—GROUND PLAN OF PROPOSED RESIDENCE.

In this plan the dining room floor is at the garden level, with porch above the former; both dining room and porch being reached by steps from living room.

W. H. WINSLOW HOUSE—BRICK, STONE AND TILE EXTERIOR.

River Forest, Ill.

Oak Park, Ill.
Basement entirely above ground.

THOMAS HOUSE.
Ground floor entrance to living rooms on first floor, bed rooms above.

ARTHUR HEURTLEY HOUSE.
Same type as Thomas House, with living rooms, kitchen and family bed rooms on main floor. Two guest rooms and bath, children's playroom and servants' room on ground floor.

F. F. TOMEK HOUSE.

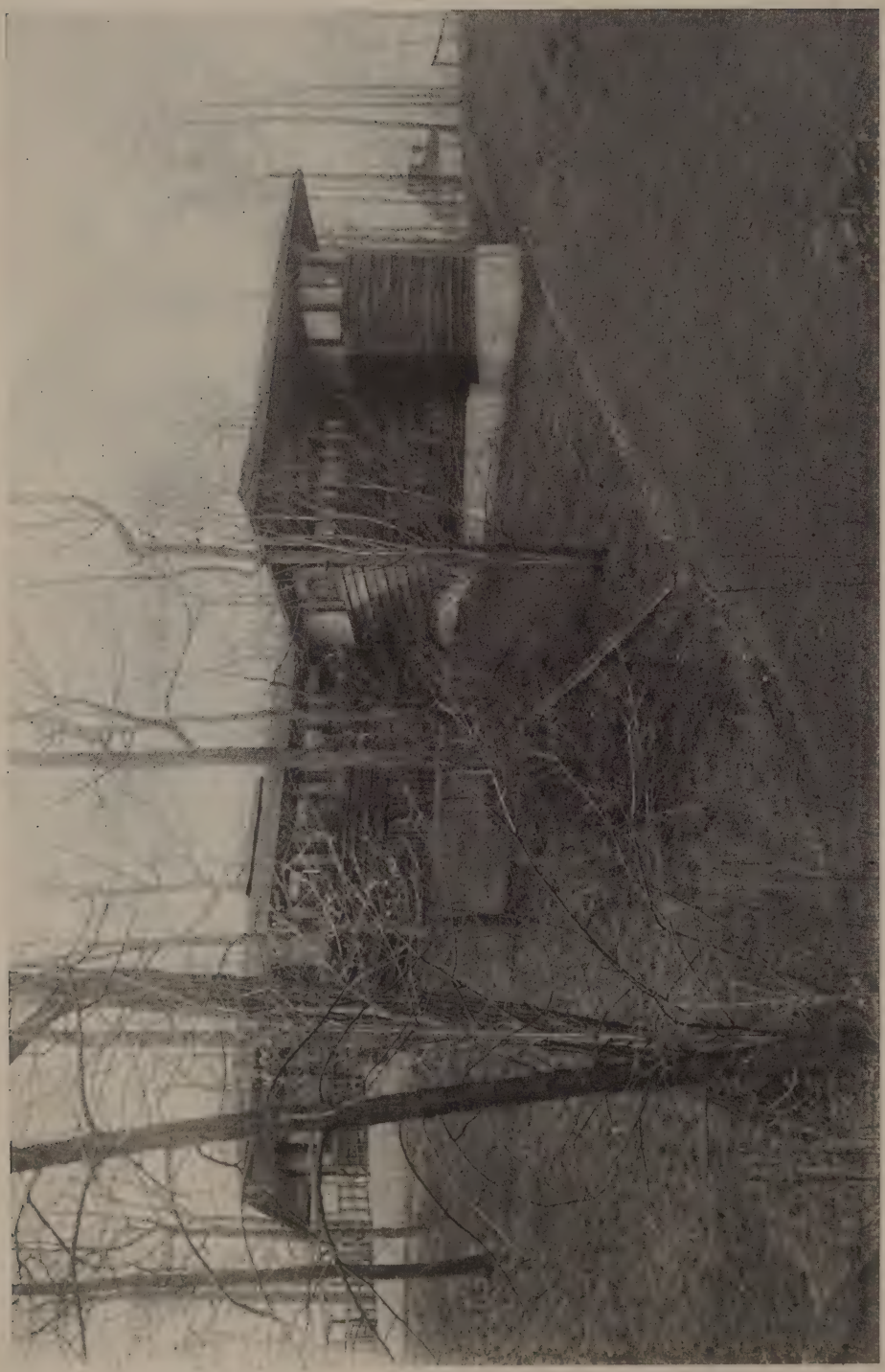
Plastered walls, tile roof. Basement entirely above ground. Ground floor entrance to living rooms on first floor. Designed for low, damp prairie. Bed rooms in upper story.

MRS. E. L. MARTIN'S HOUSE.

Oak Park, Ill.

A plastered house. The horizontal members utilized as protections for the plastered walls. The eaves, plastic in form, suited to the method of construction.

F. F. TOMEK HOUSE—SHOWING CANTILEVER ROOF OVER TERRACES.



THE W. A. GLASNER HOUSE.

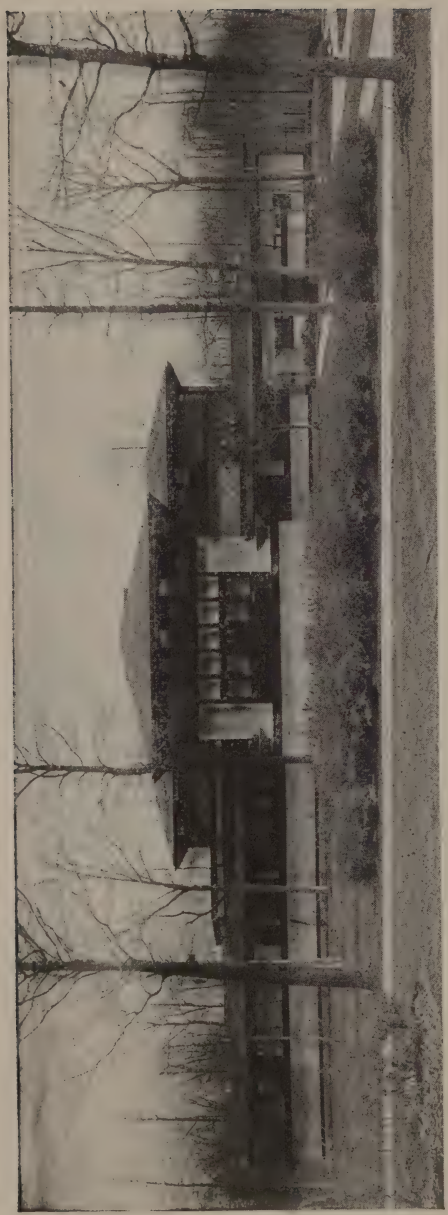
Glencoe, Ill.

A characteristic type of wooden dwelling, of which a number have been built to meet various simple requirements. In this case all the rooms and the porch are on one floor, with servants' room and laundry below. The side walls beneath the windows are covered with undressed boards jointed with inserted battens. The frieze and underside of eaves are plastered. Total cost about $5,500. The whole fits its site on the edge of a picturesque ravine.

MRS. E. L. MARTIN'S HOUSE.

Oak Park, Ill.

Showing porch managed as a semi-detached pavilion. A practical solution of the "porch problem."



Highland Park, Ill. MR. WARD W. WILLITS' HOUSE.

Peoria, Ill. ROBERT CLARK HOUSE—HOUSE, STABLE AND ENCLOSED GARDEN.

General View.

Detail of exterior of assembly room.

THF HILLSIDE HOME SCHOOL—SANDSTONE AND SOLID OAK TIMBER CONSTRUCTION. Hillside, Wis.

MR. WALTER S. GERTS' SUMMER LODGE.

Birch Brook, Mich.

MR. CHARLES S. ROSS' SUMMER COTTAGE.

Lake Delavan, Wis.

HILLSIDE HOME SCHOOL—INTERIOR VIEW.

SUMMER COTTAGE—MRS. GEO. E. GERTS.

Birch Brook, Mich.

W. R. HEATH HOUSE.

Red brick with cement trimmings. Red tile roof.

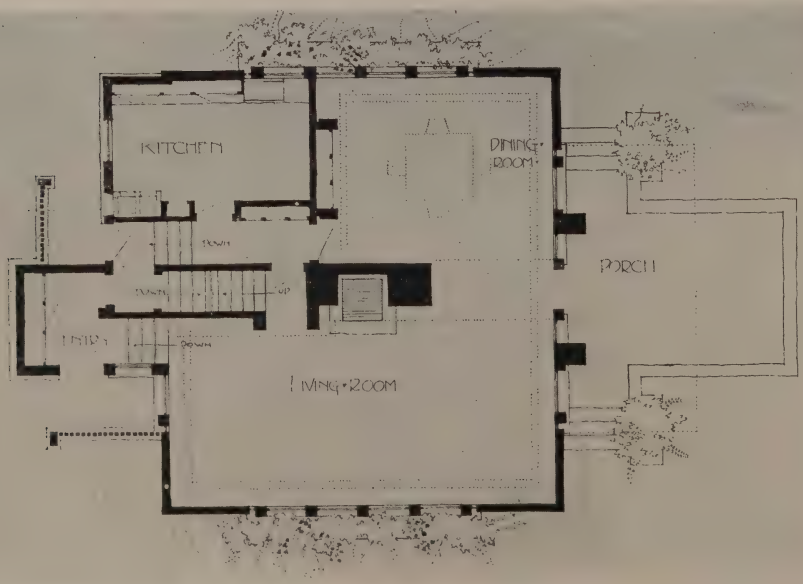
Buffalo, N. Y.

MR. W. W. WILLITS' HOUSE—DETAIL.

Highland Park, Ill. MR. W. W. WILLITS' HOUSE.
Living rooms within the terrace. View from south.

MRS. HELEN W. HUSSER, BUENA PARK, CHICAGO.

S. M. B. Hunt House, La Grange, Ill. Plan and two views of a typical, moderate cost house of the ordinary basement and two-story type with plastered exterior and undressed wood trim. The main floor is treated as a single room with separate working department, and has been reduced to the simplest terms consistent with reasonable comfort and privacy. The house has a trunk room opening from the stair landing—four bed rooms and bath on the second story, store room and laundry in basement. Total cost about $6,000.00 complete.



S. M. B. HUNT HOUSE—FIRST FLOOR PLAN.

La Grange, Ill.

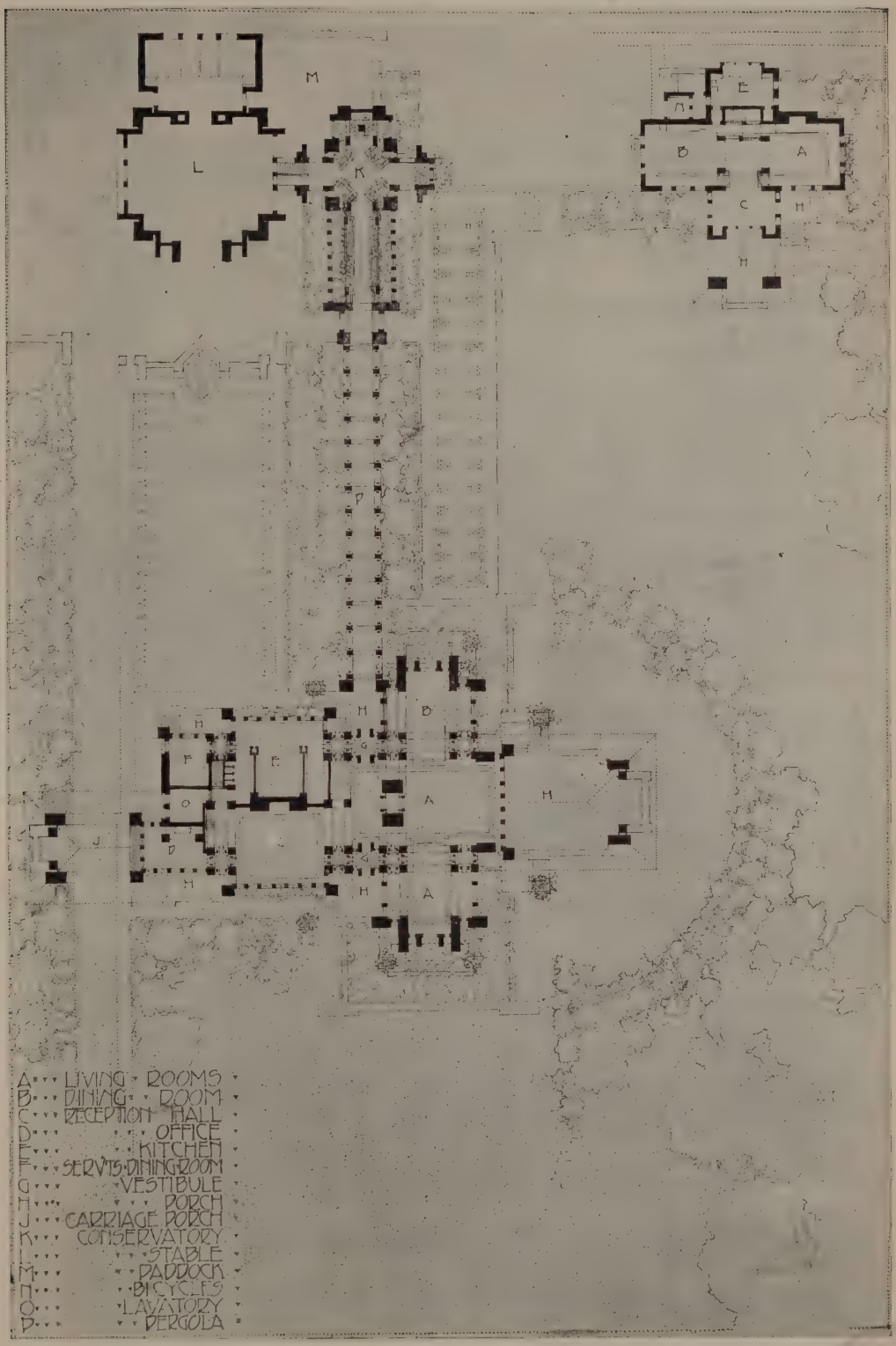
LIVING ROOM SIDE.

S. M. B. HUNT HOUSE—PORCH SIDE.

La Grange, Ill.

D. D. MARTIN HOUSE—GENERAL VIEW.

Buffalo, N. Y.



D. D. MARTIN HOUSE—PLAN.

Buffalo, N. Y.

Details of conservatory.

Looking toward conservatory.

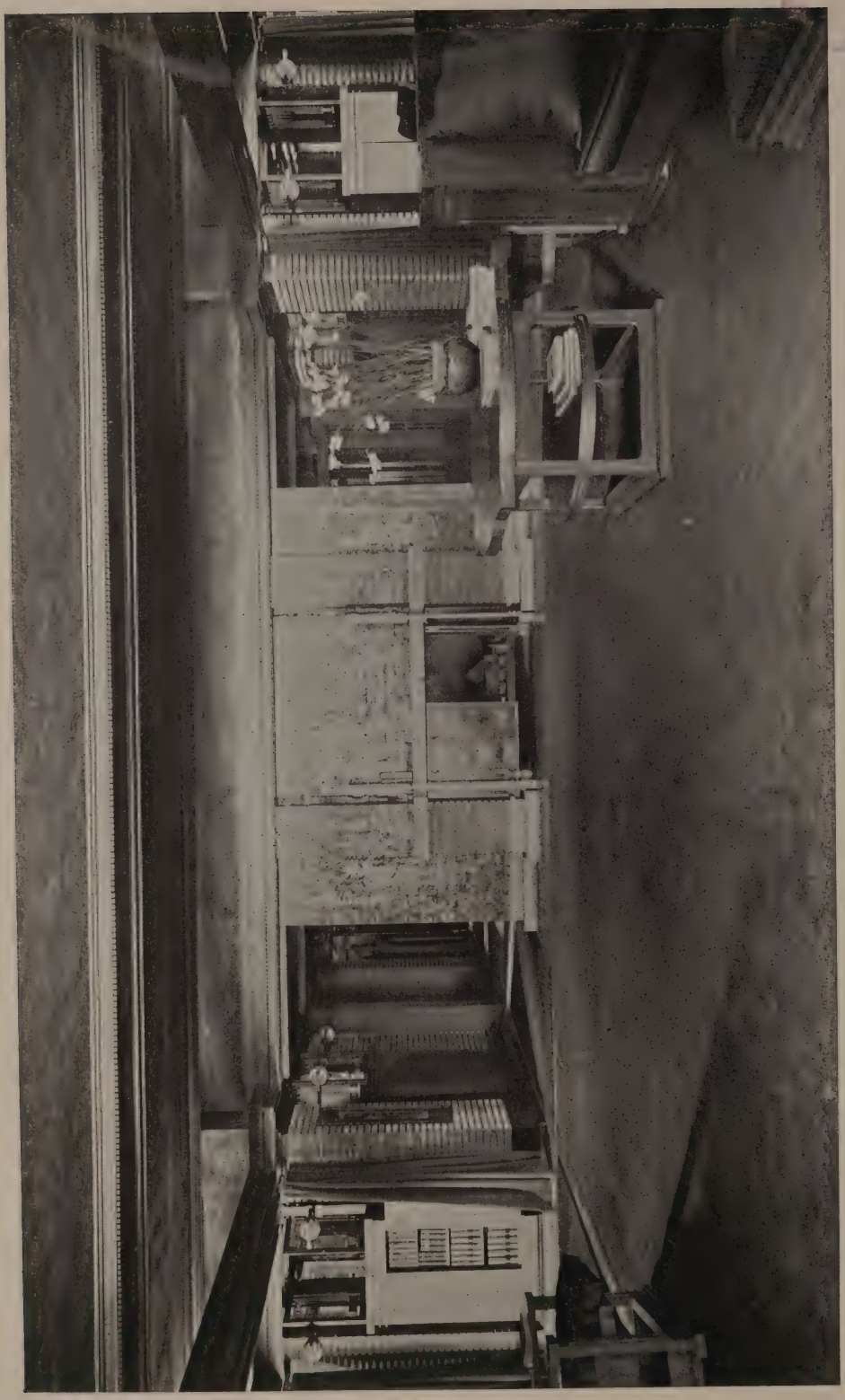
D. D. MARTIN HOUSE.

Buffalo, N. Y.

D. D. MARTIN HOUSE—HEAT AND LIGHT UNIT.

Reference to the general plan of the Martin house will show certain free standing groups of piers, of which the above is an illustration. In the central chamber formed by the piers the radiators are located, and the lighting fixtures are concentrated upon the piers themselves. Bookcases swinging outward are placed below between the piers; the open spaces above are utilized as cabinets, and from these the heat passes into the rooms. Fresh air is let into the central chamber through openings between the piers and the bookcases. The radiators and the appurtenance systems are thus made an artistic feature of the architecture.

(See page 45.) The Martin house is fireproof, the walls are of brick, floors of reinforced concrete overlaid with ceramic mosaic, roofs tiled. The vitreous brick used in the exterior walls is worked with bronzed joints into the walls and piers of the interior. The brick on these interior surfaces is used in a decorative sense as a mosaic. The woodwork throughout is of fumed white oak. A pergola connects the house with a conservatory, which in turn is connected by means of a covered way with the stable.



LIVING ROOM OF THE MARTIN HOUSE.

Fireplace opening with bronze doors to either hall or dining room or both. Facings of low toned gold mosaic; wistaria blossoms in bright gold.

D. D. MARTIN HOUSE—DINING ROOM.

Buffalo, N. Y. D. D. MARTIN HOUSE—SOUTH ROOM.

Buffalo, N. Y.

D. D. MARTIN HOUSE.
Detail in conservatory.

Buffalo, N. Y.

D. D. MARTIN HOUSE.
Detail of library, bay and terrace.

THE BARTON HOUSE OF THE MARTIN GROUP.

Buffalo, N. Y.

This design is representative also of a type, total cost ranging from seven to ten thousand dollars. The main floor is treated as a single room, entered at the middle of the side. A central stair hall, with dining room and living room screened at either end, are formed within this room by architectural contrivances not extending to the ceiling. The kitchen and the porch balance each other as protruding wings on the minor axis. The second story contains four bed rooms, servants' room and bath. (See general plan, D. D. Martin House.)

Conservatory and stable.

D. D. MARTIN HOUSE.

Buffalo, N. Y.

Pergola and conservatory and entrance. Stone bird houses.

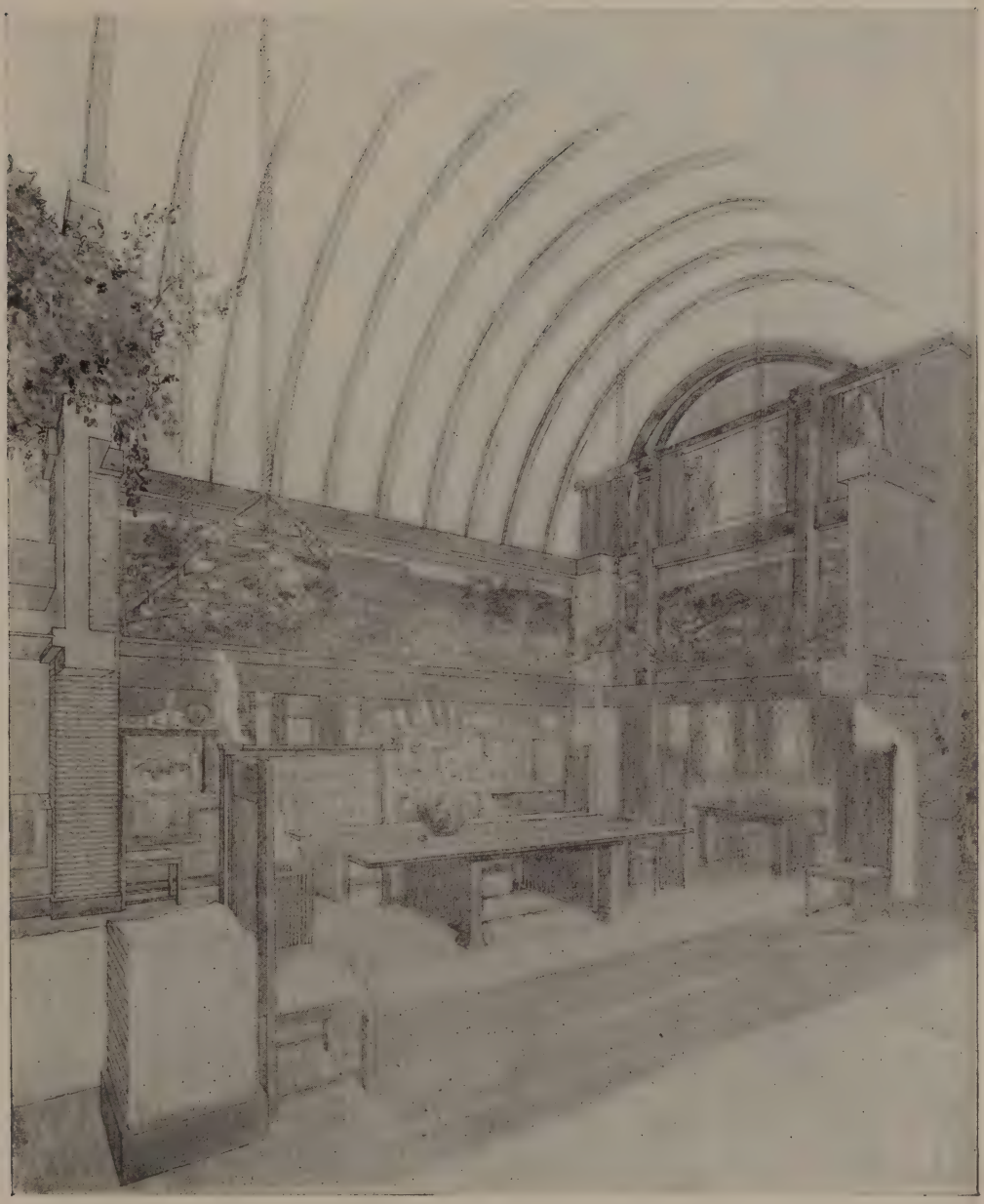
BROWNE'S BOOK STORE—DETAIL OF INTERIOR.
Fine Arts Building, Chicago.

Entrance to office.

Oak Park, Ill. OFFICE OF MR. FRANK LLOYD WRIGHT.
An alcove in the drafting room.

Oak Park, Ill. RESIDENCE OF MR. H. H. CHENEY.
A one-story brick house set within terraces and small gardens, enclosed by brick walls.

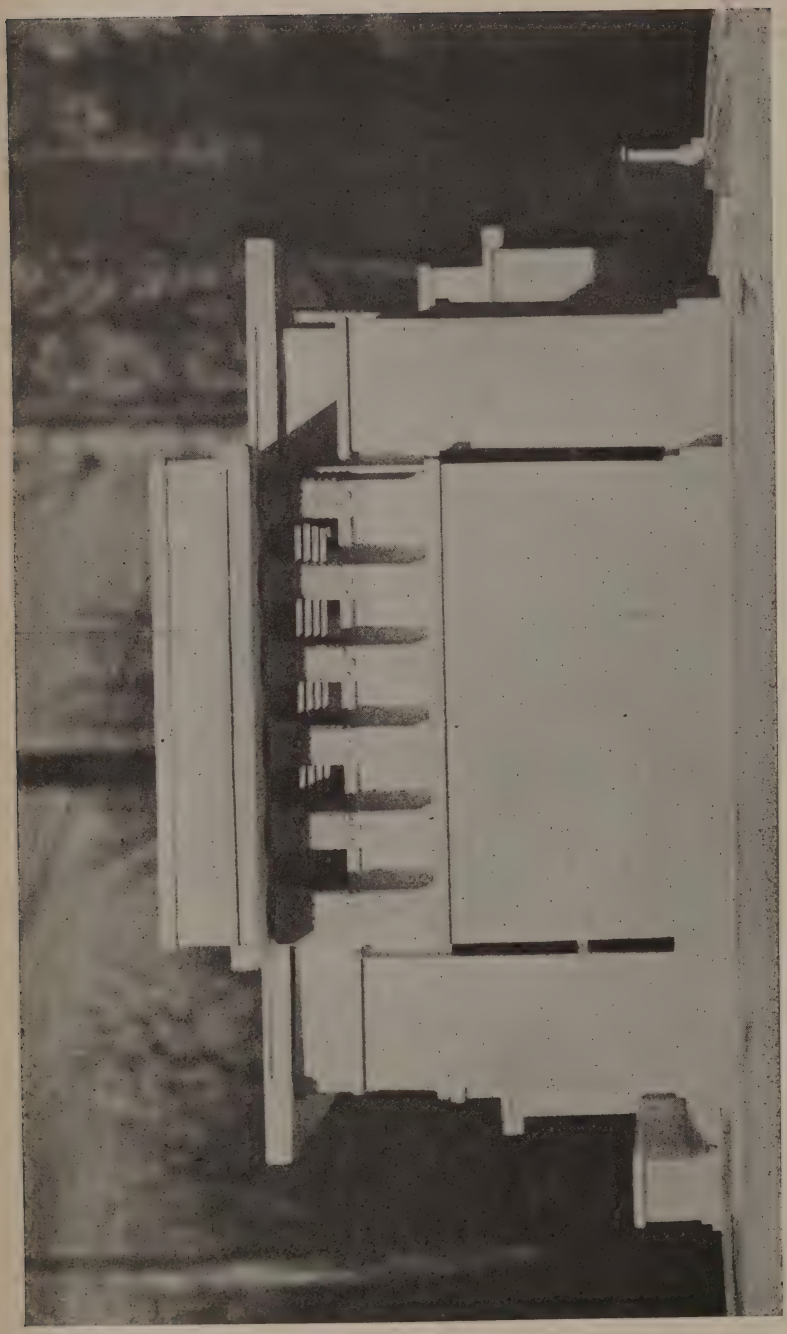
LIBRARY OF MR. WRIGHT'S OAK PARK OFFICE.



STUDY FOR DINING ROOM OF THE DANA HOUSE.

Springfield, Ill.

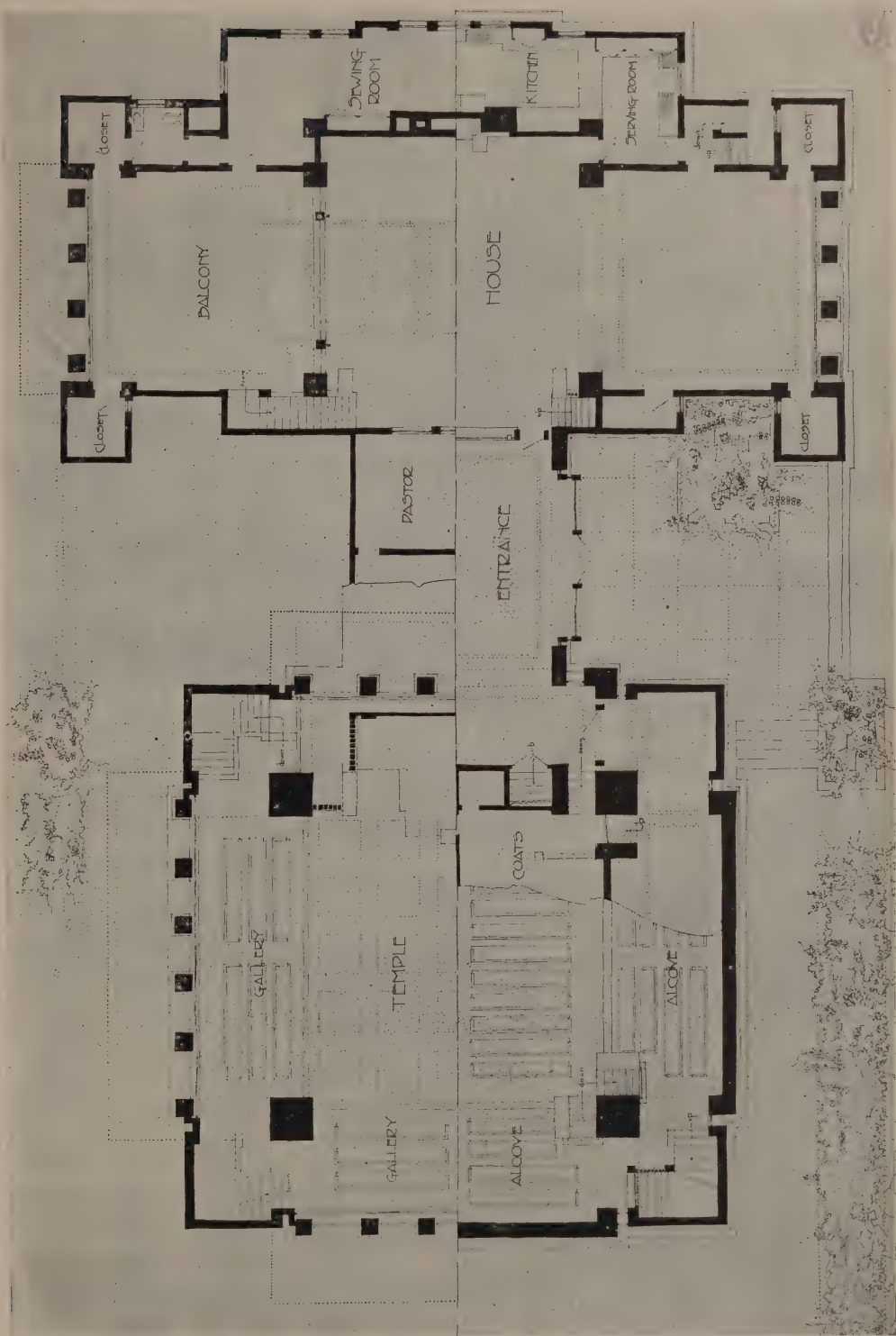
To avoid distortion in rendering, the side wall has been shown cut away. The decorative frieze around the room is treated with the Shumac, Golden Rod and Purple Aster that characterize our roadsides in September.



PLASTER MODEL—HOUSE AND TEMPLE FOR UNITY CHURCH—VIEW OF END OF AUDITORIUM.

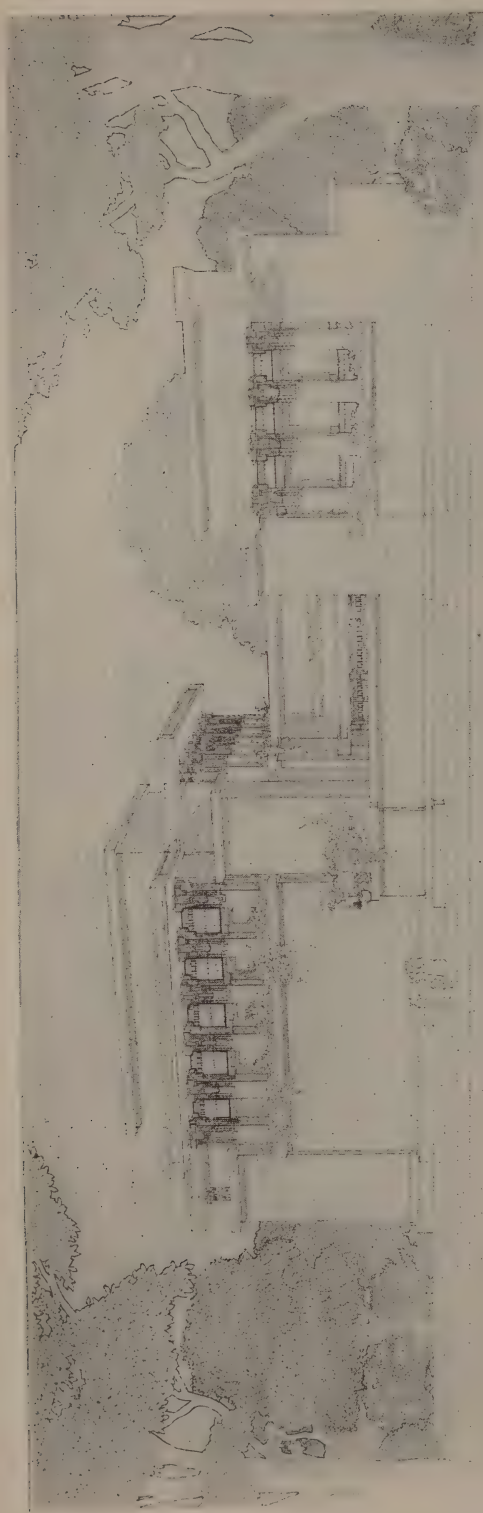
Oak Park, Ill.

A concrete monolith cast in wooden molds or "forms" and now in process of construction. A photograph on another page shows the work so far completed. After removing the forms the exterior surfaces are washed clean to expose the small gravel aggregate, the finished result in texture and effect being not unlike a coarse granite. The columns, with their decoration, were cast and treated in the same way. The entrance to either building is common to both, and connects them at the center. Both buildings are lighted from above. The roofs are simple reinforced concrete slabs waterproofed. The auditorium is a frank revival of the old temple form, as better suited to the requirements of a modern congregation than the nave and transept of the cathedral type. The speaker is placed well out into the auditorium, his audience gathered about him in the fashion of a friendly gathering, rather than as fixed in deep ranks when it was imperative that the priest make himself the cynosure of all eyes. The audience enters independently of, and at the rear of the auditorium, by means of depressed passages on either side. After services the audience moves directly toward the pulpit and out at either side of the auditorium itself. Unity House is designed for the various social activities of the church and for the Sunday school.



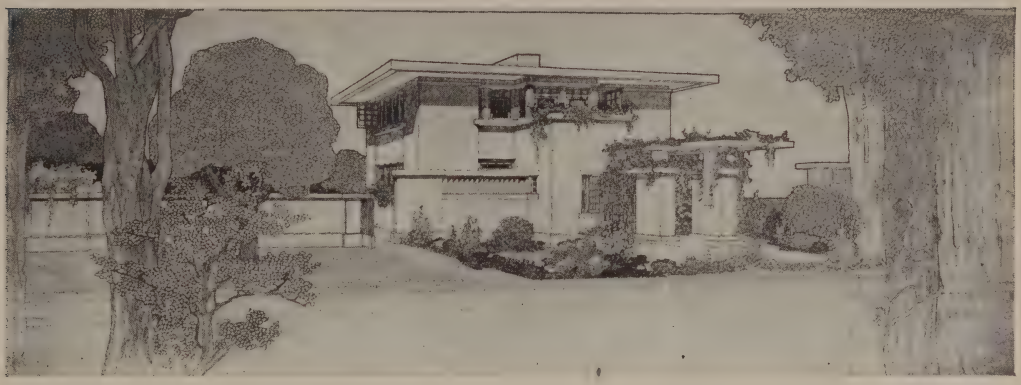
BUILDING FOR UNITY CHURCH—MAIN FLOOR PLAN.

Oak Park, Ill.



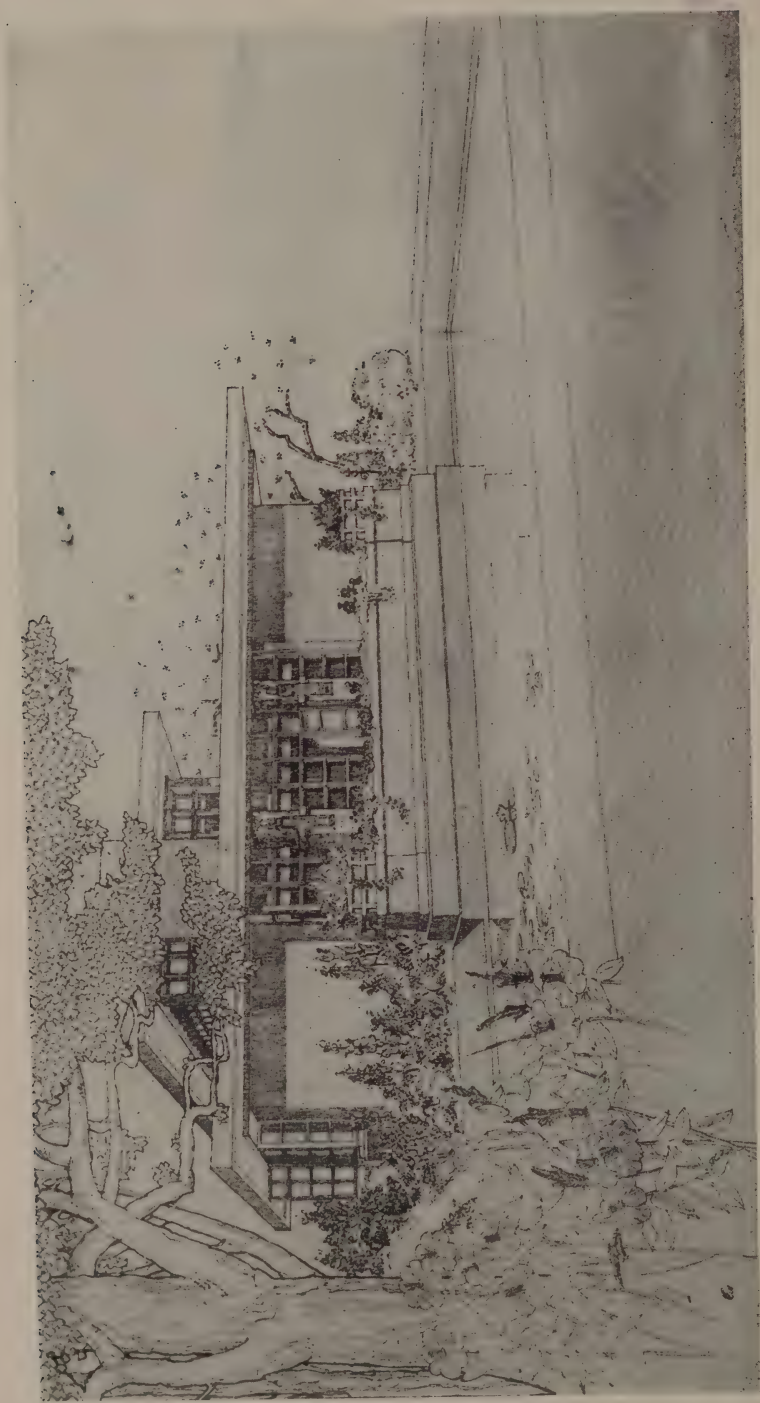
PERSPECTIVE STUDY—BUILDING FOR UNITY CHURCH.

Oak Park, Ill.



INEXPENSIVE CONCRETE HOUSE DESIGNED FOR THE LADIES' HOME JOURNAL—PROCESS OF CONSTRUCTION SAME AS IN BUILDING FOR UNITY CHURCH.

BUILDING FOR UNITY CHURCH IN PROCESS OF CONSTRUCTION.
Oak Park, Ill.



MR. RICHARD W. BOCK'S ATELIER.

This structure is designed for concrete construction similar to building for Unity Church.

MR. W. S. GERTS' HOUSE.

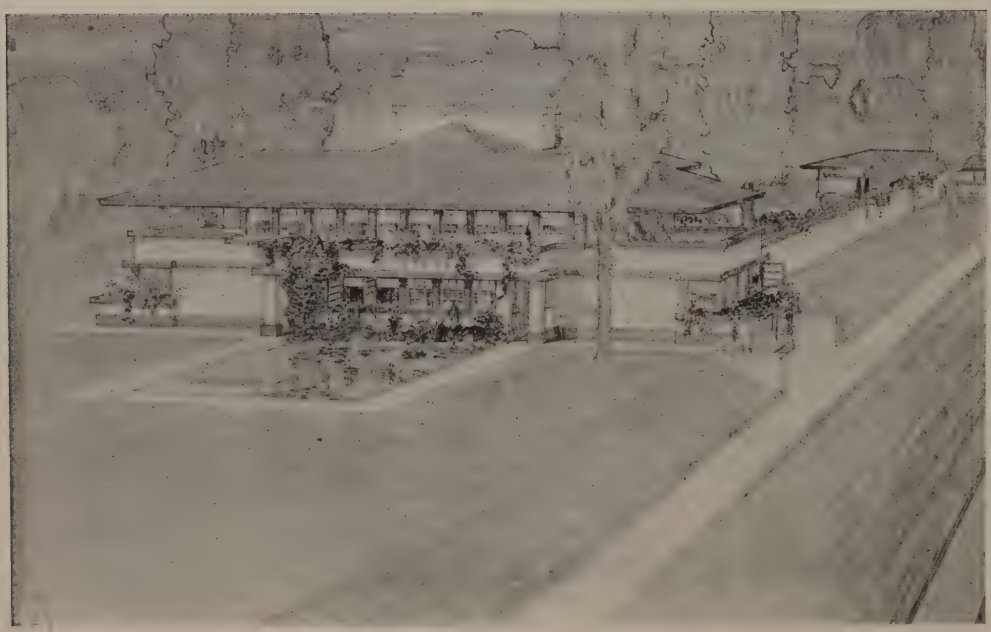
Glencoe, Ill.

Racine, Wis. THE THOMAS P. HARDY HOUSE.

Situated on the bank of Lake Michigan. The street front is opposite to the view here given.

THE ELIZABETH STONE HOUSE.

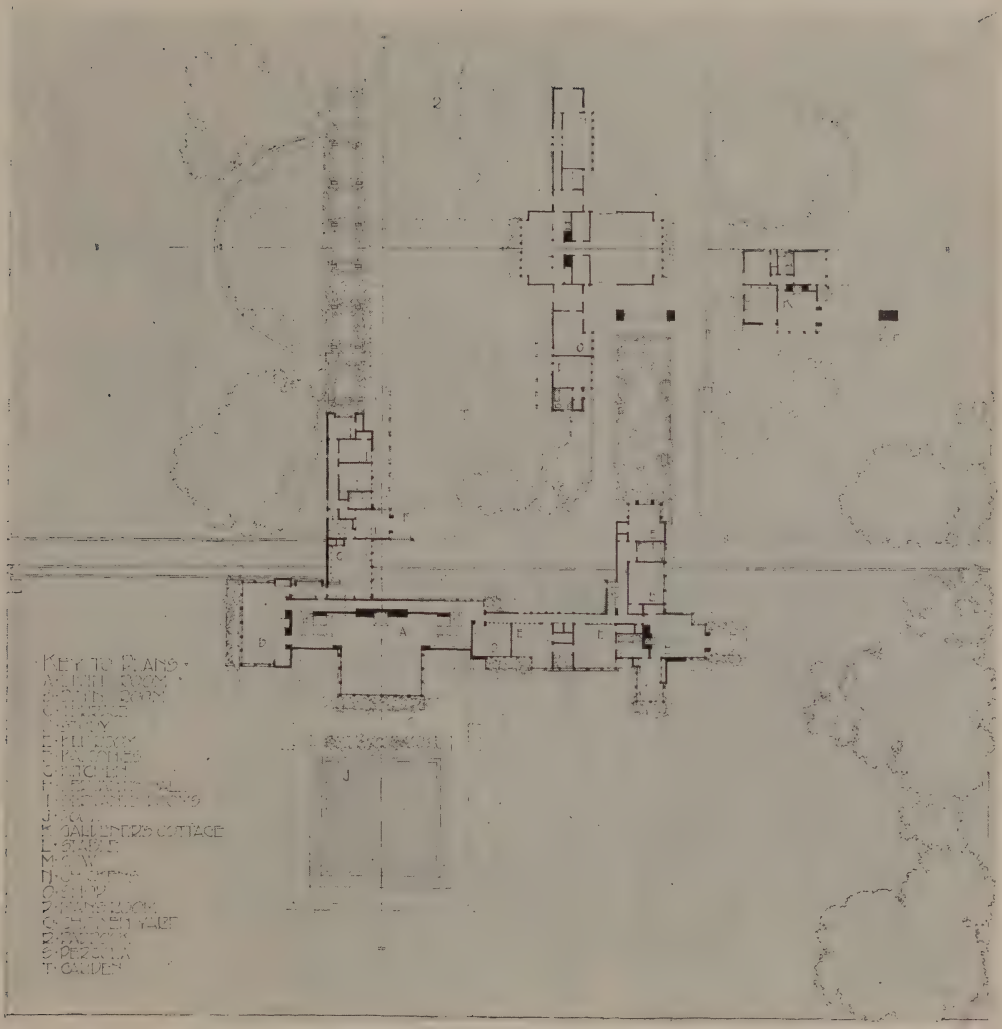
Glencoe, Ill.



HOUSE FOR MR. B. J. WESTCOTT.

Springfield, Ohio.

A simple treatment of the same problem as the Coonley house at Riverside, Ill. Living room at center; dining room on one side and sleeping rooms on the other; service wing extending from the rear of the living room.



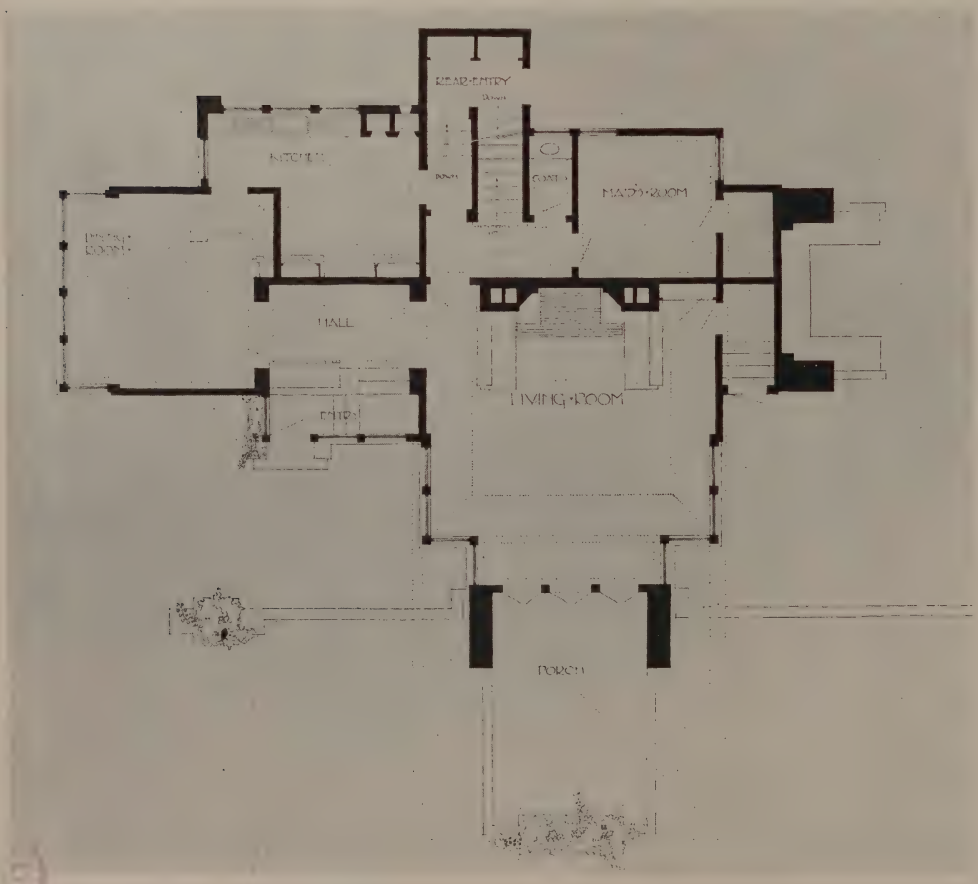
RESIDENCE OF MR. A. COONLEY.

Riverside, Ill.

A one-story house designed for the prairie, but with the basement entirely above ground, similar to Thomas, Heurtley and Tomek houses. All rooms, except entrance hall and play room, are on one floor. Each separate function in the house is treated for and by itself, with light and air on three sides, and grouped together as a harmonious whole. The living room is the pivot of the arrangement, with entrance, play room and terraces below, level with the ground, forming the main unit of the design. The dining room forms another unit. The kitchen and servants' quarters are in an independent wing. Family sleeping rooms form still another unit, and the guest rooms a pendant wing. Stable and gardener's cottage are grouped together and informally connected by a covered way which terminates in the gardener's verandah. An arbor crosses the garden to the rear, terminating in the service entrance. The stables, stable yards and gardens are enclosed by plastered walls.

RESIDENCE FOR MR. GEORGE M. MILLARD, HIGHLAND PARK, ILL.

Exterior of undressed wood throughout. The second story contains five bed rooms and two bath rooms. Man's room, laundry and store rooms in basement. This house is one of a type ranging in cost from seven to eight thousand dollars, complete.



RESIDENCE OF MR. B. J. WESTCOTT.

Springfield, Ohio.

"FLOWER IN THE CRANNIED WALL."
A DECORATIVE FIGURE IN CREAM WHITE TERRA COTTA, DESIGNED FOR THE HALLWAY OF THE DANA HOUSE.
Richard W. Bock, Sculptor.

THE NEW BUILDING OF THE CHICAGO ATHLETIC ASSOCIATION.
Michigan Ave., Chicago. Barnett, Haynes & Barnett, Architects.

An Intimate Auditorium

The Interior of the New Stuyvesant Theatre in New York

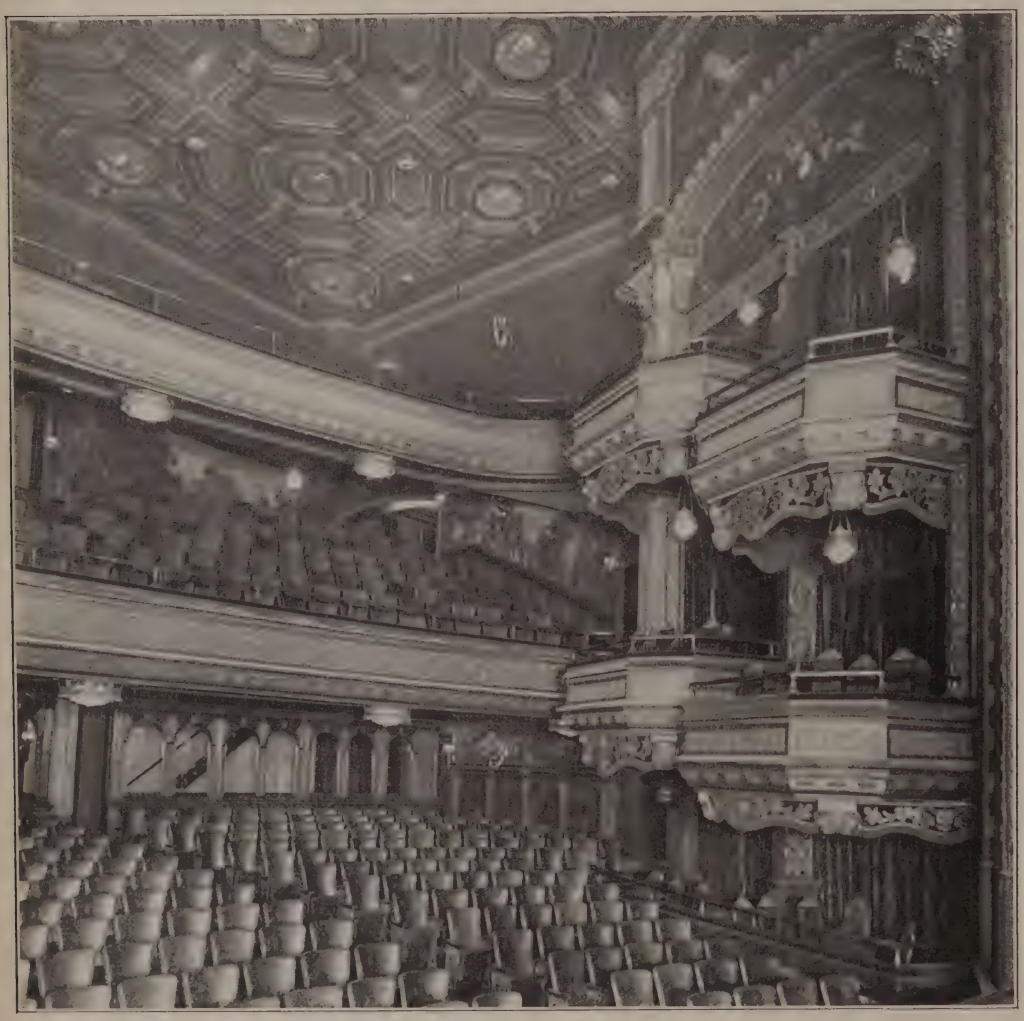
New York has not been very fortunnate in the appearance of its theatres. Their design has not, as a rule, been confined to the better half of the architectural profession, and a visit to the majority of metropolitan play houses is a positive distress to a man whose mood is somewhat influenced by the architectural interest of his surroundings. With one or two exceptions they are wholly lacking in architectural substance. A number of them have been decorated with more or less propriety and taste; but scarcely any serious and sincere attempt has yet been made to convert a theatrical auditorium, as it emerges from the hands of the builder, into a beautiful and appropriate architectural interior.

The writer was, consequently, filled with pleasant anticipations when the auditorium of Mr. David Belasco's new Stuyvesant Theatre was proclaimed to be much the most beautiful in New York. Almost everybody present at its introduction to the public was enthusiastic in its approval. People talked much about the warmth and cosiness of this interior, of its subdued lights, its pleasant tones and its harmonious decorations. A fair sample of this approval appeared in "Collier's Weekly," whose dramatic critic, Mr. Arthur Ruhl, particularly liked the shallow auditorium, the "lights veiled in tinted glass, whose color is borrowed from the decorations against which they are placed; the soothing color scheme in which the whole interior is floated—amber, golden brown, dusty gray, orange and faded green blues." And Mr. Ruhl declares that the Stuyvesant Theatre realizes more perfectly than it had ever been realized before in New York the "dream" of a satisfactory play house.

An emphatic critical statement of this kind at once suggests an inquiry as to the character and appearance in general of a satisfactory play house, and the designers of the new Stuyvesant auditorium have not left us in any doubt as to their idea of what the interior of a theatre ought to be. It appears that they were not trying to make a play house at all, in any sense, which would distinguish a theatre from a private dwelling. The Stuyvesant Theatre is "not a mere auditorium," they explain in their official description, "a space in which a number of unrelated human units should be gathered by the mere chance that each had paid the price of a ticket of admission; but a living room in a high sense of that sometimes commonplace phrase—a room wrapped in the atmospheric intimacy of which the spectator would feel not so much that he was in a public place, as in a private house to which he had been personally invited." According to this announcement, Mr. David Belasco is, as it were, at home in the Stuyvesant Theatre. A card of invitation is issued each morning in the newspapers to everybody living in New York, Brooklyn, Long Island City, Jersey City, Hoboken and the remotest suburbs which invites them all, at a small expense, to visit him that evening in the living room of the Stuyvesant Theatre—the word living room being understood to mean a very high sense of that sometimes commonplace phrase. Then Mr. Belasco will greet them, wrap them in a transparent veil of atmospheric intimacy and shield them from the vulgar publicity of a mere auditorium.

One night last winter I decided to accept Mr. Belasco's invitation, even though I were obliged to pay two dollars and a half for the pleasure of an introduction into the living room of my host. Neither did I regret the expense. I was not, indeed, received personally by Mr. Belasco in the living room of the theatre, but I was greeted on every side by the most salient evidences of

my host's personality. Neither the play, the performance nor the apartment could be attributed to any other manager. There was no trace of Mr. Frohman about the interior domestic arrangements, nor of Mr. Savage, nor of Mr. Erlanger. The atmosphere belonged emphatically and inexorably to Mr. Belasco; but it occurred to me almost in the same breath that, intimate though it was, the atmosphere did not belong exclusively to him. I realized that I was in a small way contributing to the success of this charming domestic scene. I, too, was helping to make the interior of the Stuyvesant Theatre a living room in the highest sense of that sometimes commonplace phrase. Mr. Belasco was furnishing the room, and I was helping to furnish the living. The room, that is, did not become a living room until I and a few other human and suburban units had taken our seats in the dim domestic light; but once we had arrived, the propriety of the phrase transcended all commonplaces. The living which Mr. Belasco was making out of the room was more than domes-



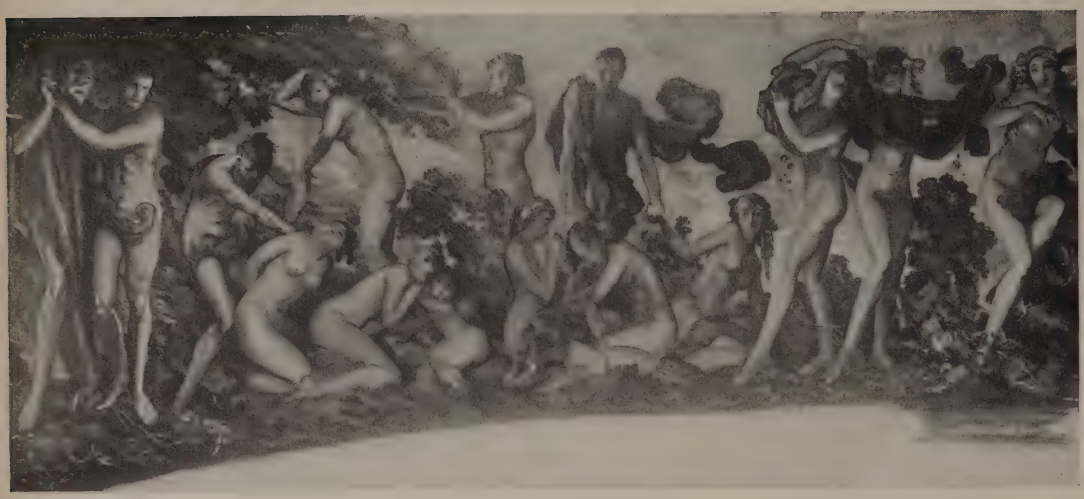
STUYVESANT THEATRE AUDITORIUM—VIEW FROM THE STAGE.
West 44th St., New York. Showing Decorations by Everett Shinn.

tic. It was regal. It was melodramatic. It was, in a word, theatrical.

As I sat in my chair that night, enjoying Mr. Belasco's hospitality, I could not but marvel at the inevitability of this peculiar manifestation of theatrical domesticity. My host had been predestined from the cradle to build a theatre which was not to look like what it was, but which was to seem to be precisely what it was not; and he was predestined also to be eminently successful in this task. The erection of such a play house may be figured as the symbolic expression of his theatrical career. For many years he had been writing and producing plays, which, however different they were in source and subject, were all stamped by one common characteristic —an utter lack of reality and sincerity. These plays did not merely belong to the theatre. They belonged to nothing but the theatre. He has been the master mechanic of the contemporary American stage; and he has become supremely clever in the difficult art of working powerfully on the feelings of his audiences. No doubt he could not be so successful in working up the feelings of other people, unless he had first taken the precaution of pumping up his own feelings. I can almost imagine Mr. Belasco himself weeping over the incidents in his plays, which are carefully calculated to make his guests weep, just as a drunkard will weep over his fancied wrongs or sweat in the enunciation of his proud convictions. But he remains none the less a theatrical carpenter and painter, who momentarily confuses his powders and paints with flesh and blood. Upon his stage nothing is ever said or done except for theatrical effect. Mr. Belasco is the great purveyor of a refined version of the yellow drama; and when he came to provide the yellow drama with a habitation, it was inevitable that he should build some such theatre as the Stuyvesant.

No doubt some of my readers will fail to follow the connection between the yellow drama and a domesticated theatre. They will rather infer that the proper habitation of the yellow drama would be a yellow theatre—a theatre such as Mr. Hammerstein builds, overloaded with flamboyant decorations and fairly blushing at the cheapness of its own gilded extravagance. But this inference would be a palpable mistake. A yellow theatre would, it is true, be a candid and sincere expression of the yellow drama; but the one thing that the yellow playwright and manager must necessarily avoid is candor and sincerity of any kind. He cannot afford to give himself away. He and all his creations must always pretend to be something which really they are not. Mr. Belasco has traveled far beyond the melodramatic innocence of painting his villain black, or of expressing violent emotion in big type; and in the same way he has traveled far beyond the innocence of confessing that a theatre ought to be a theatre. It must not be a theatre. It must rather be a private house, because if it were frankly a theatre he would be missing the kind of an opportunity of which he was born to take advantage—an opportunity of fooling his audience. So he announces in his programme that his auditorium is a living room; and he has made it look as much like a living room as he can—which means, of course, that it would be a peculiarly distressing place for the residence of a person of taste.

I am aware that very few units of American humanity will share this opinion. Mr. Belasco was born not only to fool himself and other people, but to fool them most successfully. His auditorium is precisely the kind of room which the ordinary human unit would take to be a most artistic living room, just as the ordinary human unit takes the machine-made effects of his plays for manifestations of genuine feeling. I have so often seen his audiences shudder or weep over some theatrical *tour de force* which, to the judicious, could only be profoundly irritating, and in the same way his audiences are plainly delighted with his dim lights, his dusty grays and his faded green blues. But this, of course, is merely to admit what has already been most emphatically asserted. Mr. Belasco knows his business. He is pastmaster in the art of theatrical fakery, and it is precisely because he is so successful that his au-

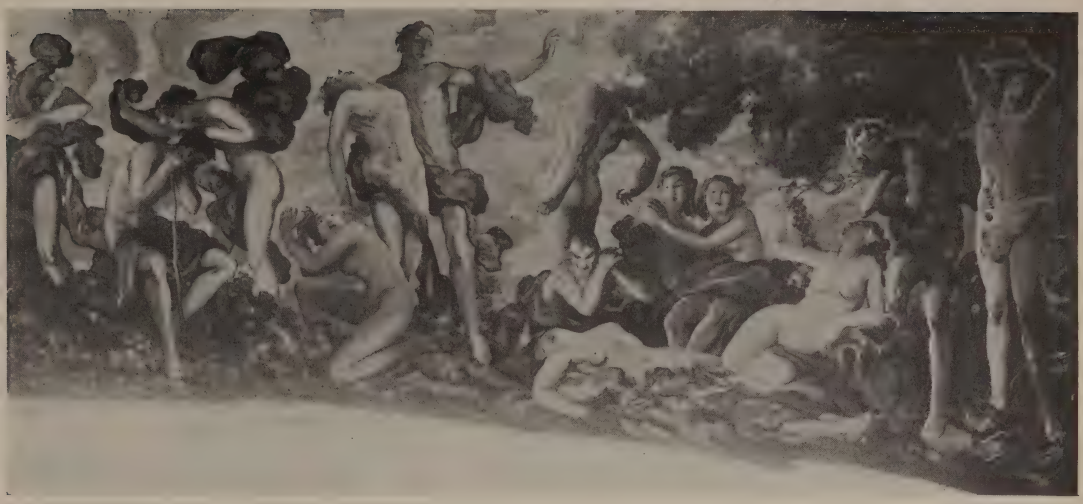


DECORATIVE FRIEZE DESIGNED BY MR. EVERETT SHINN FOR THE

ditorium becomes a living room in the highest sense of that sometimes commonplace phrase. In these hard times we must all envy a man such a bewitching room in which to live. To the senses it may seem to be painted in dusty grays and faded green blues; but to the mind's eye it will be plastered inches thick with the richest gold.

The Stuyvesant Theatre is, then, about as far as possible from fulfilling the "dream" of a satisfactory play house. It belongs to the numerous group of American architectural hybrid. As a domesticated theatre it must take its place beside the villas which look like palaces, the living rooms which look like banquet halls, and the libraries which look like mausoleums. As long as such a confusion of ideas is permitted we shall never have satisfactory play houses. A theatre must, be first of all, a theatre. It must be precisely what Mr. Belasco has sought to avoid. It must frankly confess and express the fact that it is an auditorium, in which anybody can sit who has the money to buy a ticket, and which should be as different in appearance from a living room as it is in function. Nobody lives in a theatre except managers and actors, and they only in the sense that a business man lives in his office. Theatres are public places in which people go to be amused, and it should be designed and decorated with this condition and function constantly in mind.

The Stuyvesant interior has been elaborately decorated from a false and deceptive standpoint, and it betrays not the slightest evidence of sincere and appropriate architectural design. The architecture of the room is concealed as much as possible behind a mask of dim lights, of color schemes and of upholstery; but wherever it shows through it is as frivolous and trivial in its interior as it is in its exterior. The structure, the shape, the fundamental proportions and the salient lines of the room have been totally ignored in its treatment. The architectural detail is either commonplace or vulgar. The whole interior is as much of a stage setting as are any of the rooms at which the spectators look across the footlights; but it is a stage setting which is inappropriate for its purpose. The convention which leads architects to pitch the decorative scheme of a theatre or a ball room in a high key is entirely justifiable. The effect of such a room should be bright and gay. It should be abundantly lighted, and its walls should be so decorated as to constitute an effective background for handsome gowns. The Stuyvesant interior is so dimly lighted that one can scarcely recognize a friend across the room, and one cannot read

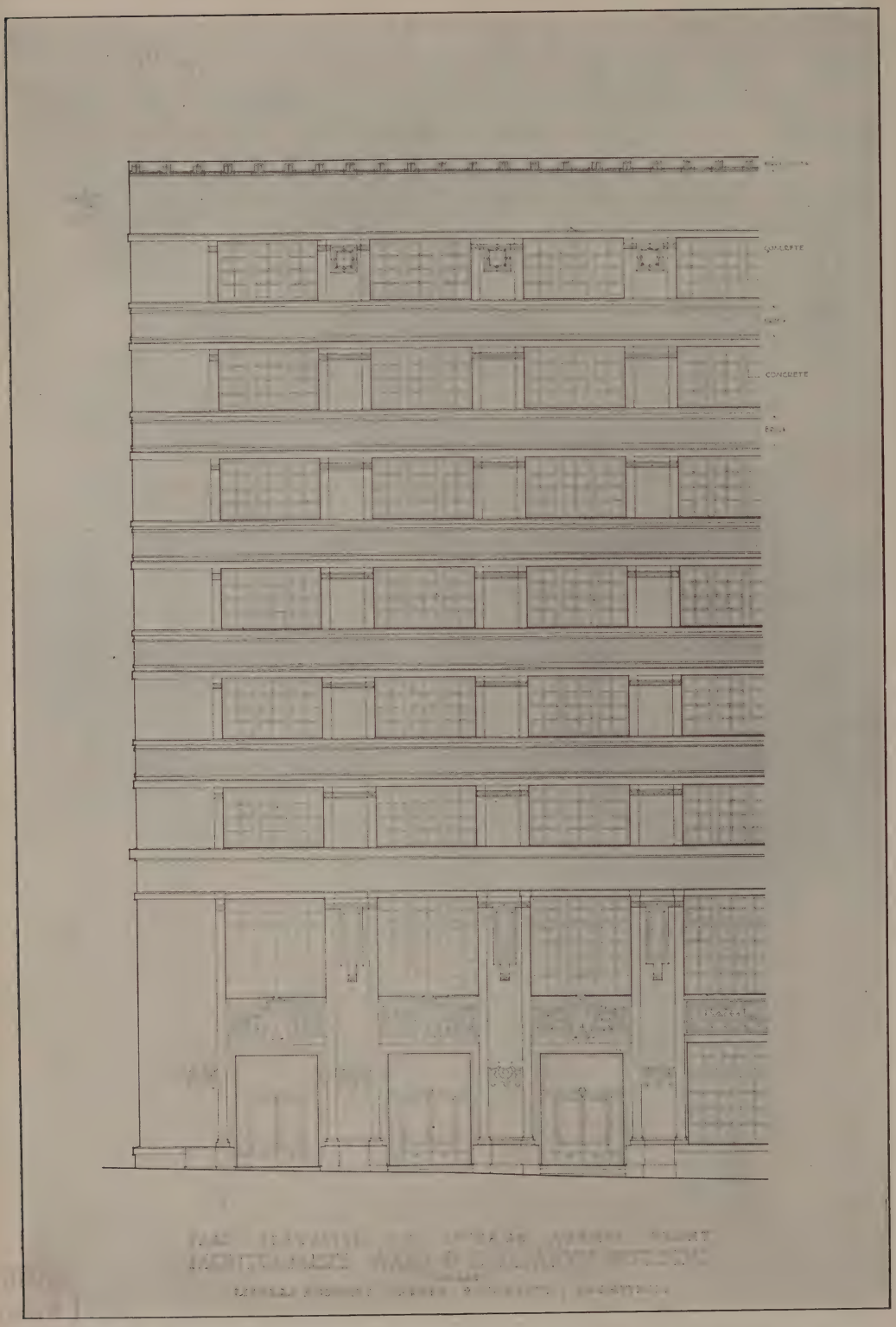


PROSCENIUM ARCH IN THE STUYVESANT THEATRE.

the programme without a strain upon the eyes. Its dusty grays and faded green blues make all gowns look very much alike. It is too dimly lighted even for a living room, except, perhaps, a living room, if there are any such, which is used exclusively for *tête-a têtes*. A room as dimly lighted as this should be either a church or a tomb; and Mr. Belasco would do well to change the official description of the Stuyvesant interior and call it a temple of theatrical art.

Be it understood that the Stuyvesant interior may be an inappropriate and pretentious sham, and yet may still have certain attractive qualities. It may be compared to a woman, whose languishing coquetries are both irritating and obnoxious, without for that reason being wholly ineffective. It is undoubtedly possessed of a specious charm, which prevails with the majority of human units, partly because it is specious, and partly because it is novel. Inasmuch as nine New York theatres out of ten expose in the most brazen way charms which might better be concealed, it is not surprising that people confuse the coquettish prudery of the Stuyvesant interior with the modesty of virtue. Moreover, it should be added that the lady wears upon her person certain gems, whose value is not in the least counterfeit. Mr. Everett Shinn's decorations look as if they would be charming, provided they could be sufficiently seen; and it is very much to be hoped that this painter will have a chance, with the assistance of some sympathetic and intelligent architect, to continue this kind of work in living rooms which are not temples of theatrical art. But Mr. Shinn's pretty adornments do not prevent the lady from being a fraud; and like all frauds, she will in the long run prove to be tedious. Mr. Belasco, as usual, has been too clever and too ingenious in his theatrical mechanics. If he had attempted to carry off his pretence of a domesticated theatre with a smaller parade of colored lights and dusty grays and faded blues it might have been allowed to pass. The old Lyceum Theatre on Fourth avenue, for instance was decorated from the same erroneous point of view; but it was not tedious or irritating, because the scheme of decoration and lighting was handled without affectation and exaggeration. But when the Stuyvesant interior loses its novelty it will lose most of its charm, even for the ordinary human unit; and while this fact will not prevent it from being a living room in the highest sense of that sometimes commonplace phrase, it may at least prevent it from being considered a temple of any kind of art.

Arthur David.



A PORTION OF THE DESIGN FOR MONTGOMERY, WARD & CO.'S NEW WAREHOUSE, NOW NEARING COMPLETION.

Chicago, Ill. Schmidt, Garden & Martin, Architects.

The longest side of this building is over 800 feet in length.

NOTES & COMMENTS

THE PARKER BUILDING FIRE

The engineers and fire experts who have examined the Parker Building in New York, the scene of the latest fatal fire, have completed their report to the Fire and Building Departments and other organizations. It appears that the building was of the numerous class called by courtesy "fireproof." These structures are, no doubt, non-combustible but offer little protection to their contents and are damageable all the way from 5 per cent. to 90 per cent. of their cost value. Such buildings form a class absolutely distinct and different from the big skyscrapers of New York and the really fireproof buildings of the first class.

Its outer walls are of stone, brick and terra cotta, its skeleton of cast-iron columns and steel beams and the floor filling of fireproof hollow tile. But the steel beams and girders were unprotected by tile in their most vulnerable parts, the lower flanges; the elevator shafts and stairways opened into every story; iron shutters of an inferior order protected only some of the windows; the water supply permitted the firemen to reach to only the fifth floor. The building was put up for light office purposes, but was occupied as a manufacturing plant and loaded with machinery and filled with combustible materials; most of the partitions were built upon the wooden sleepers in the concrete filling of the floors. The fire virtually had to burn itself out unchecked. Yet it was not a total collapse and, its materials being incombustible, it was essentially a fire of the contents and it was kept within the building in which it originated. With the water pressure as it was, had that fire been in some of the old-fashioned, all-exposed steel and wooden-joisted buildings it might have been the beginning of a colossal conflagration.

Some alarmists see in this fire a danger to the great skyscrapers of our larger cities. Where any of these have been built by architects and engineers not competent to do really fireproof work and in cities whose building codes permit such unscientific putting together of however good materials, there that danger lurks; but where those tall buildings are constructed as are the best in New York, with every particle of the steel frame thoroughly protected from fire by hollow tile or other adequate protection, and where the stories are isolated one from the other by enclosed elevator and stair shafts, and where the external openings are protected by metal sash and wire glass, there exists not the slightest danger of any such disastrous fire, for, whatever the contents of the building, fire originating upon any one story cannot possibly extend beyond that floor. A well-built thirty-story skyscraper is as safe against fire as would be thirty one-story absolutely fireproof buildings in a row.

But this lesson should not be without its effects. It should certainly tend to lessen the opposition that exists in most of our cities against more stringent building regulations and their strictest enforcement. If left to their own devices there are probably as many people willing, to-day, to exercise the "economies" practiced in the Parker Building as there were at the time it was built ten years ago. It is imperative that the cities should compel really fireproof construction, and further that in the second class and in old buildings similar to the Parker adequate provision should be made in the way of enclosing shafts and protecting windows and supplying sufficient water, hose and alarms to make the recurrence of such a calamity impossible under ordinary conditions.

MUNICIPAL ACTION NECESSARY

The partial destruction of this so-called fireproof building in New York, and the complete annihilation of its contents, again centre attention upon the fact that people are constantly being misled as to the true nature of the buildings they occupy. The constructional defect in the Parker Building was not apparently one of the actual safety of the skeleton, the quality and quantity of metal composing its sections—but rather of the putting together and the protection against fire of those members. The inadequate fire protection of its framing alone should have

ONE OF CHICAGO'S NEWEST APARTMENT HOUSES ON LAKE SHORE DRIVE.
Chicago, Ill. Marshall & Fox, Architects.

excluded it from the class of commercial structures that can fairly be rated as fireproof. It is in the elastic interpretation of the word "fireproof" that a serious danger lurks for the tenant. We have seen steel-beamed, wood-joisted construction called "fireproof"; likewise wood framed sheds covered with galvanized iron. And it is common for owners of buildings to obtain tenants under these false pretenses, criminal misrepresentations. The mere fact that hollow tile or concrete is used for the floor arches, leaving steel beams and girders and structural parts exposed, does not constitute fireproof construction.

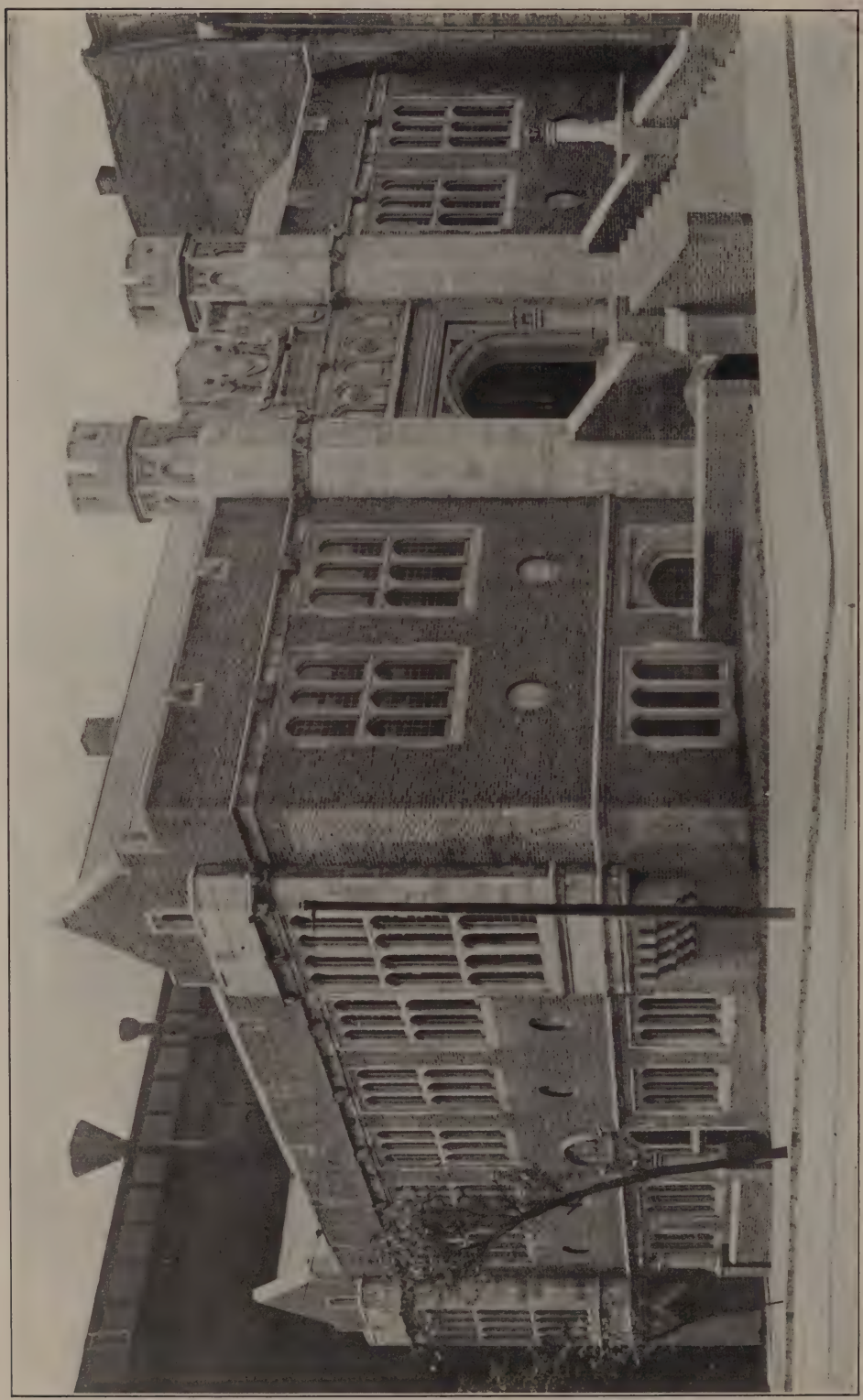
It is most necessary that our civic authorities should be urged to take some action that the building departments issue a license to and virtually label all buildings of first-class construction, that is, those in which all the elements of fireproof construction have been incorporated, buildings deemed secure by those authorities. Buildings of only semi-public nature should also be labeled and classified. And it should be made a heavily punishable offense for any owner or agent to term his building and advertise it for public occupancy as belonging to a class to which it has not been certified by the building department. That would effectually put a stop to "constructive lying" and make owners sail under their true colors, and, incidentally, add to public safety and a real appreciation of what is and what is not "fireproof" construction.

MODERN LANDSCAPE GARDENING*

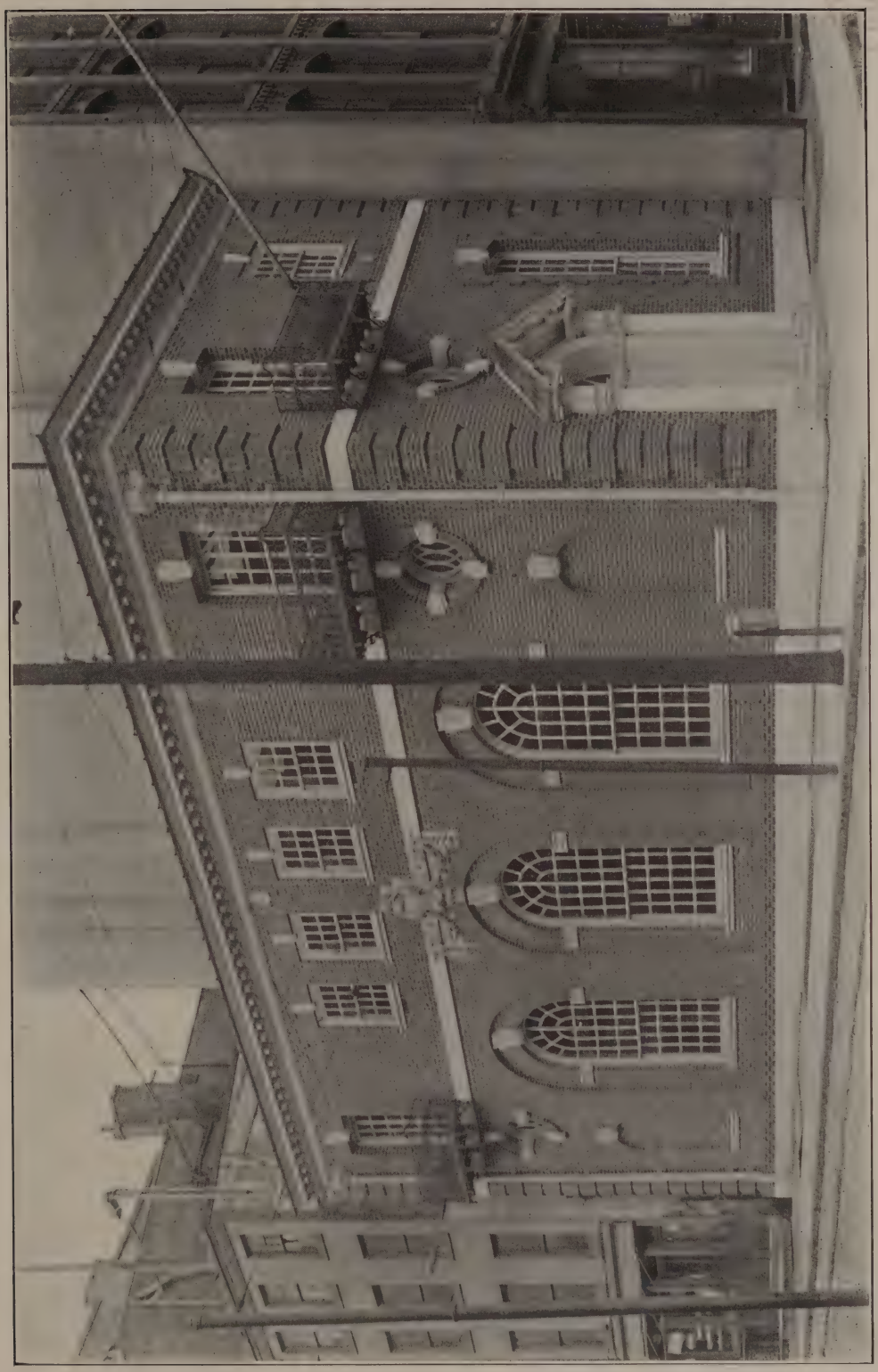
It seems odd that there should be a battle of the styles in landscape gardening, and that the hands of the gentle horticulturists should yearn to tear each other's eyes. But, after all, such a conflict is not only a corollary of the battle of the styles of architecture. It is a necessity of the case, so long as the adjectives "classic" and "romantic" continue to connote radical differences, as we see that they do. The "formal garden" and the "jardin anglais" respond to differences which assert themselves in every mode of artistic expression, differences personal and differences "ethnic" which transcend European civilization, differences between the men who demand that art shall simulate nature and the men who demand that nature shall submit to art. In which category, by the way, should we place Japanese gardening? It is at once so intensely naturalistic and so intensely artificial, and it is yet a more popular art than any European mode of gardening. Of what other army in the world could it be told that a brigade with a week's enforced idleness on its hands has set itself to reproduce a "landscape garden" of its own country in a strange land? Yet this is what a Japanese brigade is reported to have done on a Manchurian plain, a new and original version of "super flumina Babylonis."

Repton (1752–1818) was by no means a pioneer in the informal garden. In truth, the natural romanticism of which Gothic architecture is in its kind the most impressive expression, died almost equally hard in France and in England. Nobody who studies the great French châteaux of the Loire can help seeing that the Italianization, or classicization, was imposed upon them by royal caprice, and that the root of the matter is almost always, in the great châteaux, the vernacular architecture of craftsmanship, not the imported and imposed architecture of formula. In England the same resistance occurred, and was much more stubborn, thanks to the fact that no Tudor monarch took such an interest in architecture as did Francis I. His contemporary, Henry VIII., had much more important things to think about, to wit, what may be called his own "modus vivendi," and let English architecture go on its own picturesque degeneration with a minimum official interference in the direction of Italianization, and with that little so ill-assimilated or incorporated that the Jacobean architecture, contemporary with an almost completely classicized Ludovican architecture in France remained incorrigibly romantic, or, in the old English sense of the word, "humorous." Our Repton's distinction between Gothic and classic is incomplete, when he calls the one vertical and the other horizontal. But his specific characterization is unimpeachable when he says of "the large houses built in Queen Elizabeth's reign, where Grecian columns are introduced":—"nevertheless, we always consider them as Gothic buildings." It is curious to look over again, in this sense, perhaps the earliest English treatise on landscape gardening, no other than Bacon's essay "Of Gardens." Bacon was the child of his age, and his age was the Renaissance. He set more store by the Latin of his own works, which is forgotten, than by the English,

*The Art of Landscape Gardening. By Humphry Repton, Esq. Including his "Sketches and Hints on Landscape Gardening," and "Theory and Practice of Landscape Gardening." Edited by John Nolen, A. M., Member of the American Society of Landscape Architects. Boston and New York: Houghton, Mifflin and Company. MDCCCCVII.



Philadelphia, Pa. SPRING GARDEN BRANCH, CARNEGIE LIBRARY. Field & Medary, Architects.



Third and Chestnut Sts., Philadelphia, Pa. BORIE BUILDING. Wilson Eyre, Architect.

which bids fair to be remembered as long as anything in the language is remembered. The revival of learning and the consequences in its train were the great facts of the age, and there is no reason to doubt that Bacon, so far as he had any architectural predilections, entirely approved of the tendency to the "revived classic" in that art also. But the ideal mansion that Bacon sketched in words in his essay "On Building," though he says nothing in it about "style," was a piece of Elizabethan which, even in its two loggias, we should nevertheless as Repton has it, "consider as a Gothic building." And when Bacon came to lay out his ideal garden of thirty acres, with six acres out of the thirty devoted to the "heath or desert," which is to say wilderness, it is as clear that what he had in his mind was the "jardin anglais," the "informal garden."

Not that Repton was a bigoted "informalist." He takes pains to assure us in words that he was not. He takes still more and more successful pains to give us that assurance in his works. His words are: "I do not profess to follow either Le Nôtre or Brown, but, selecting beauties from the style of each, to adopt so much of the grandeur of the former as may accord with a palace, and so much of the grace of the latter as may call forth the charms of natural landscape." That would be a first rate motto for a modern landscape gardener and would tend to inspire confidence among his intelligent clients. Especially if they knew that "Brown" was that "Capability" Brown (1715–1783) who, in the middle of the eighteenth century, was the favorite and fashionable maker of English "places" for the British nobility and gentry. Repton was his successor and exceeded him in fashionableness, insomuch that, though he never received any public or royal orders, his present editor, Mr. Nolen, estimates his professional opportunities as not inferior to those of Le Nôtre himself. That is a great deal to say when one recalls Versailles alone. But Repton, in the great "seats" of the English nobility dealt with as large expanses, and was little more limited in the article of expense. Two hundred "places" of all kinds, from rural or suburban cottages to great parks, attested, and some of the greatest among them continue to attest, the skill with which he worked out in land and wood and water the theories which he sets forth in the two books, originally sumptuous and costly and now become costlier still by their rarity, of which the gist is given in the single volume of moderate price now under notice. It is a great service that is thus done to the modern practitioners of landscape gardening, a term which some of them will learn with surprise owes its very origin to Repton.

The radical notion of Repton and his naturalistic school is the application to landscape gardening of the maxim "ars celare artem." They apply it, and indeed it is applicable, with an intensity unknown in any other art. For all other works of art at least appear as artificial, whereas it is the highest success of the landscape gardener to have his work pass for that of nature, and, as Johnson says about the "writer who obtains his full purpose," to "lose himself in his own lustre." "The perfection of landscape gardening," Repton lays it down, "depends on a concealment of those operations of art by which nature is embellished." Clearly, this does away with the formal or, as Repton calls it, the "geometric" gardening of which the spectator is never for a moment suffered to forget that what he is admiring is art and man's device. But Repton by no means lays this down without qualification. He has "frequently advised the most perfect symmetry in those small flower gardens which are generally placed in front of a greenhouse, or orangery, in some inner part of the grounds, where, being secluded from the general scenery, they become a kind of episode to the great and more conspicuous parts of the place." "Symmetry is also allowable, and indeed necessary, at or near the front of a regular building; because, where that displays correspondent parts, if the lines in contact do not correspond, the house itself will appear twisted and awry." Again: "There are situations in which the ancient style of gardening is very properly preserved; witness the academic groves and classic walks in our universities; and I should doubt the taste of any improver who could despise the congruity, the utility, the order and the symmetry of the small garden at Trinity College, Oxford, because the clipped hedges and straight walks would not look well in a picture."

But these exceptions by no means invalidate the rule—the rule that landscape gardening should look natural and that the work of man should appear to be the work of nature. The fullest confession of faith the book contains is perhaps this:

> The perfection of landscape gardening consists in the four following requisites: First, it must display the natural beauties and hide the natural defects of every situation. Secondly, it should give the appearance of extent and freedom by carefully disguising or hiding the boundary. Thirdly, it must studiously conceal every interference of art, however expensive, by which the scenery is improved, making the whole appear the production of nature only; and, fourthly, all objects of mere convenience or comfort, if incapable of being made ornamental,

or of becoming proper parts of the general scenery, must be removed or concealed.

That will be accepted as a clear enough creed of naturalistic or informal landscape gardening. The greater part of the volume is devoted to showing how the author applied it in actual "places," from such lordly domains as Welbeck or Thoresby to his own little roadside cottage in Essex. The inquiry is facilitated by his practice of keeping a "red book" for every place with which he was intrusted, in which he set down his prescriptions and his reasons, illustrating them by an ingenious device of his own, which he called "slides," from which, by raising a flap, the beholder could contrast the actual state of the place with its proposed or expected state, and find the evidence of things not seen. The chief interest of the book lies in this inquiry, for the pursuit of which, however, it will be necessary to resort to the book itself, since it cannot be carried on without the help of the illustrations. With that help, it will commend itself not only to the professional landscape gardener, but to every reader interested in landscape gardening either on its own account or in subordination to or association with architecture.

THE LOS ANGELES PLAN

The report on the improvement of Los Angeles, submitted a few weeks ago to the mayor, the city council and the municipal art commission by Mr. Robinson, was divided into three main parts. The first contained general suggestions for work in various portions of the city; the second was devoted to four large improvement schemes planned for the business district; the third outlined a boulevard system connecting all the parks and leading to Pasadena and the sea. The report, which is very long, lays great stress on developing in the Los Angeles plan more invitation to life out-of-doors, on getting away from the Eastern and Middle West idea in the city's street plotting and getting rather the effect of a European capital. There is no copying, but a planning to suit the superb climate, the tourist life, and that spaciousness which one expects to find in California, where everything is big and generous. The improvement schemes which are of most interest here, have to do (1) with a Union Station and its approach. A mile long avenue, 200 feet wide, terminating in a plaza in front of the station, is planned by Mr. Robinson. This scheme the City Council and Chamber of Commerce have since taken up with the railroads. (2) A beautiful educational, or "cultural" center, in which library and art gallery are placed on a hill, with a fine forecourt leading up to them. On the latter the new auditorium and some churches face. (3) A civic center, or grouping of public buildings, in which court house, post office and city hall are brought together. (4) A park scheme around the old mission and on the historic hillside back of it. The report met with general approval.

NEW HAVEN'S AWAKENING

It is interesting enough to record the municipal art developments in the newer cities; but it is just a little more interesting to observe the expression of this new spirit of American progress in the older communities. That New England is very vigorously taking up the matter of town and city planning was shown by a recent note in this department. Among the cities named as illustrating the fact was New Haven, and in that staid old town, standing for so much in early history, the recent developments have been very interesting. On November 29 there was dedicated on the "Green," close to the Old Pump, a marble fountain, provided by the bequest of a citizen. The juxtaposition of the old and the new utility dramatically illustrates the change in conditions and the rise of new urban ideals. The fountain was designed by Professor Weir, of the Yale school of fine arts, but it is significant, perhaps, that he went back to Athens for his model—to the Choragic monument of Lysicrates near the Acropolis. He changed it, in making the base a little higher. The placing of the fountain on the Green is significant of a wish gradually formed, but now widely shared in New Haven, that this beautiful old town center may be made a civic center, which in architecture shall have a harmony and beauty commensurate with its present arboreal picturesqueness. Ernest M. A. Machado, a New Haven architect who has since died, made a drawing for a group of court house, hall of records, and library, that should have these qualities together with appropriateness of style. The plan was never authoritatively adopted; but now $300,000 has been provided for a library, by the gift of a woman loyal to New Haven; a state law requires a safer housing of the records, and a committee has been appointed to consider a new court house. Other civic problems were pressing for artistic solution, and—as earlier in Springfield—there rose a man to meet the emergency and lead public

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DINING ROOM.

RESIDENCE OF MR. HENRY C. BUTCHER—LIVING HALL.
22d and Locust Streets, Philadelphia, Pa.

opinion. In a strong two-page letter in the newspapers last summer, George Dudley Seymour appealed to his fellow citizens. By popular subscription, $10,000 has since been raised, and F. L. Olmsted and Cass Gilbert have gone to work to make a plan for New Haven.

A CATHEDRAL FOR HALIFAX

The new wave of cathedral building continues in evidence, significant and locally momentous as each new project must be. The latest decision to be reported is that of the Protestant Episcopal diocese of Nova Scotia, to erect a cathedral in Halifax. The plans have been adopted and the money is reported to be coming in quite rapidly. It is notable that the bishop, in making his appeal, says: "One of the chief seaports of America should, like Liverpool and New York, be marked by the presence of a cathedral, so that, coming from one country to another, the first thing to catch the eye of the traveler will be that which speaks of the continuity of the Church." This is quite the spirit of ancient catholicism—the spirit that built cathedrals. The architects are Cram, Goodhue and Ferguson. Their task has been the designing of a cathedral that shall cost a very definite and modest sum—$175,000 for the chancel, the crossing, and three bays of the nave, which is all that will be undertaken at present. Consequently, only the simplest materials are used, and nothing which is not essential is included. The ceiling is to be frankly of wood, stained dark; but so designed that vaulting can later be substituted. For the lower aisles and ambulatories, however, either arched vaults or slabs of masonry are to be used. The roof is to be of slate, probably of the "graduated" type, which these architects have championed. Throughout, the effort has been to have all the materials honest and appropriate. The extreme width of the building at the transepts is to be eighty feet; the extreme length 255 feet, and the height of the central tower 132 feet.

TOWN PLANNING SUGGESTIONS

Warren H. Manning, of Boston, in an address before the Congress of Horticulturists in Jamestown a few weeks ago, had much to say about the advisability of securing a comprehensive town plan. As usual, plain good sense characterized his statements. "I conceive it," he said, "to be the duty of village improvement societies and park superintendents to direct their attention to the preparation of such a plan rather than to expend all their efforts and money on a small area or other minor improvements at haphazard, or upon general clearing-up operations, street lighting, and the like, that should be executed by the town officers, through their regular appropriations." There is need of emphasizing the latter point. He continued: "There is now a rapid trend toward the ideal I have outlined, not only in cities, but in many small towns. My own experience is that with such plans and public interest, the whole aspect of a community will be transformed in from five to eight years. There must, of course, be a leader in the movement, however, who is big enough to grasp the whole conception and persistent enough to hold fast against criticism until it is well under way. It always means self-sacrificing effort on the part of the few, as does any advanced movement for the general welfare, but the results and the ultimate general approval of those whose opinions are of value, will well repay this effort. I believe it is not necessary, however, to place the work on a sentimental ground, for almost invariably the execution of a well considered plan leads to increases in land values that make it a good proposition."

MUNICIPAL ART

In connection with the recent exhibition of the Architectural Club of Pittsburg—of which a feature was the plan of a proposed civic center—the Art Club and the Pittsburg Chapter of the American Institute of Architects united to secure from Frederic C. Howe a lecture on municipal art. The fact that a lecture on this subject was called for in Pittsburg, and that it was given by one known as a leading authority on taxes and municipal government, rather than as an art enthusiast, justify some investigation as to what was said. It turns out that Mr. Howe really is a civic art enthusiast, and that his address was a convincing appeal. He is optimistic as to the future, and from his own particular bias. He said: "In the last half dozen years a change has taken place in American cities, a change that is almost revolutionary. It is so marked that it seems to me to indicate that the American city is going to be the best governed city in the world. There are a good many manifestations of that, and I won't say the chief of them is the interest in art, but it is one

of the manifestations. It is a great manifestation for this reason: there is no commercial, no ulterior, no material motive that should inspire men to take an interest in municipal art. It must be inspired by something else. It is really awakened by a love and interest in the city. And the best possible evidence that the American people are taking an interest in their cities and are going to make their cities something worth while, is the fact that all over this land municipal art societies have sprung up, art commissions, and little groups of men who grow in volume and power until they make public opinion respond to their will." "Democracy," he added further on, "is seeking to express itself again in fine monuments indicative of the belief of the people in themselves. During the great religious centuries they sought to typify their religious beliefs in beautiful Gothic cathedrals, their spires running heavenward; so to-day democracy, the democratic spirit, is going to embody its ideals and belief in itself in fine public structures, in beautified cities, in parks and avenues." In telling the inevitable story of the Cleveland Group plan, he said: "Finally, one hard-headed Scotchman got up,"—at the public meeting called to consider the matter—"and said he had thought it over, and had figured out that it would cost about ten cents more per head per annum for thirty or forty years to do the thing right than it would to do it wrong." "I do not mean," Mr. Howe said, "that that argument won the day"; but we may be sure it had an influence. The calculation is worth remembering.

PUBLIC BUILDING SITES

President Robert W. de Forest, of New York's Municipal Art Commission, has suggested that such a commission ought to have something to say about the location of public structures as well as about their architectural character. He enforces his argument with various illustrations of cases in which much greater effectiveness might easily have been secured at the cost of some artistic forethought, but at no added cost in money. In this note the argument is not needed, for to architects the suggestion speaks for itself and with a force which makes it applicable to all cities as well as to New York. Yet practical difficulties preperceive at once that if an art commission sent themselves, and one can perceive at once that if an art commission became entangled, as it instantly would, in a vortex of conflicting real estate and business interests, its whole usefulness would probably be jeopardized. On the other hand, to obtain a good—or at least, not a bad—design for a public building inadequately placed, is only to make the best of a poor situation; and if the function of the commission is to give us good examples of civic art, the site of the public structure is as vital a consideration as are its style and ornament. It would seem that municipal art commissions might at least be called upon, and even required, to advise on the location of public structures. It is best, perhaps, that the determination of the site should remain with the department to which the building will belong—police, fire, educational, councilmanic, or whatever it may be; but that the official representatives and defenders of the community's public art ideals should have as certain and respectful a hearing as do property and purely commercial interests. There can be no doubt that such a change would do much to foster the grouping of public buildings and the development of local civic centers—both of these being results that are desired by architects, by civic students and social workers; and that it would do much in an educational way, awakening in the public a sense of the nearness and persistent practicalness of the problems of civic art.

EXHIBITION OF MUNICIPAL ART SOCIETY OF NEW YORK

Circulars have been issued for the seventh annual exhibition of the Municipal Art Society of New York, to be held, through the courtesy of the National Arts Club, in their galleries, 119 East 19th Street. The exhibition will take place from March 4 to 27 inclusive. All exhibits must be received by February 29. Circulars of information, tags for exhibits, cards of admission, etc., may be had on application to the secretary of the Municipal Art Society of New York, 119 East 19th Street.

The Exhibition Committee is composed of Francis Newton, chairman; H. Van Buren Magonigle and William Ordway Partridge.

FOREIGN THOUGHTS ON TOWN PLANNING

Some foreign ideas have come to hand on comprehensive planning for towns. There has been established in London lately the Chelsea Embellishment Association, and it has employed Professor Geddes, who has already done valuable work for Edinburgh and

Dundee, to make plans for it. At this writing the plans, if yet completed, have not been made public; but it is stated that they express the professor's idea that such schemes should represent a natural and logical evolution from the past and present of the district planned for, and that economic and social conditions should have at least as much weight as do aesthetic. In an interview with him, published in the Oxford "Tribune," he calls attention to what can be done at once, by voluntary effort, to increase the beauty of existing plots. He said, for example, that "in Dundee the asphalt near the walls around one of the elementary school playgrounds had been broken up at his suggestion, and a border of flowers and shrubs put in its place. Throughout the summer the children had not done three pennyworth of damage to the plants, and the appearance of the playground had been immeasurably improved." The other and more pretentious contribution to the discussion is a leaflet, issued in Birmingham, by John Nettlefold, Chairman of the Birmingham Housing Committee, on "Slum Reform and Town Planning." "A town plan," says Mr. Nettlefold, "settles the direction, width and nature of the proposed streets, the situation of open spaces, and in some cases (in Europe) defines the class of buildings to be erected in particular districts." In speaking for narrow roadways with broad parking, on the streets given up to laborers' houses, he made a novel but good point in saying that the resulting reduction in the cost of the street construction must tend economically, as such streets cease to be a novelty, to reduce considerably the rents of the abutting houses—less gross rent giving an equal net return. As to advantages in having a town-plan, he notes as one the protection of landowners from one another. "As things are to-day, one landowner sometimes ruins his neighbor's estate." But a great gain, he thinks, is economic. "Heavy rates are constantly levied for street widenings, and other improvements, such as slum clearances and the provision of open spaces. Under town planning, this expenditure would be largely avoided by the exercise of foresight." A careful compilation of data on this subject seems, he says, to establish the fact that in the last ten years, "not less than £30,000,000" have been expended for such improvements, that would have been saved had there been town-planning. In his own committee, he says, 2,105 unsanitary houses have been dealt with in the last five years. Of this number 635 had to be absolutely demolished, and twelve acres of land transformed into open spaces. Yet he thinks that during this period Birmingham has perhaps done proportionately rather less than other cities. The advantage of a comprehensive plan, he remarks, is abundantly evident in the case of a single large estate; and "the same thing applies in a much greater degree to a whole town, which is really only a large estate partially developed."

AMERICAN COMPETITIONS

Under the above caption the Tee Square Club of Philadelphia publishes a large volume of 160 pages of attractive half-tone plates showing 49 competitive designs of seven important competitions of the year that were exhibited at the club's galleries. The buildings represented are the Soldiers' Memorial for Allegheny County, Pennsylvania, of which Messrs. Palmer & Hornbostel were the successful competitors; the D., L. & W. R.R. Station, Scranton, Pa., which was awarded to Mr. Kenneth M. Murchison; the Union Theological Seminary, New York City, Messrs. Allen & Collens being the architects selected; the State Educational Buildings, Albany, N. Y., in which Messrs. Palmer & Hornbostel again figure as the star performers; the building for the International Bureau of American Republics, Washington, D. C., which Messrs. Albert Kelsey and Paul P. Cret have been selected to execute; the Connecticut State Library and Supreme Court Building, Hartford, Conn., of which the first prize went to Messrs. Donn Barber and A. T. Hapgood; and lastly the Central Building for the Y. M. C. A. of Philadelphia, in which Mr. Horace Trumbauer is the successful competitor. These drawings are reproduced of such a size that the lettering on plans is generally legible and the various drawings of a design are carefully given at the same scale, a useful procedure which is generally neglected in publication. Carefully edited programs giving the information requisite to a thorough understanding and study of the designs, precede the illustrations.

This book of the Tee Square Club's marks an important step in the direction of American architectural scholastic emancipation. It is not our purpose to convey the idea that the book before us chronicles an American Architecture, but that the general character of the work suggests an attempt at some sort of freedom of opinion and less artistic servitude than we can recollect seeing grouped together under one cover without particular selection—and the work all of one year and covering a comparatively restricted area. The volume should be for American architects a valuable record of current American architectural tendencies artistic and utilitarian.

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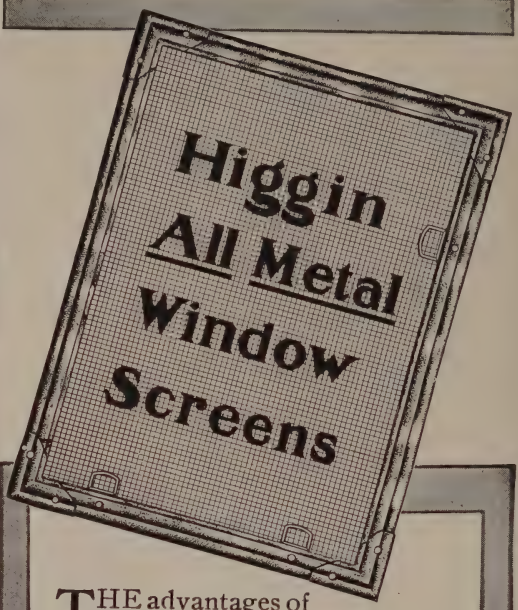

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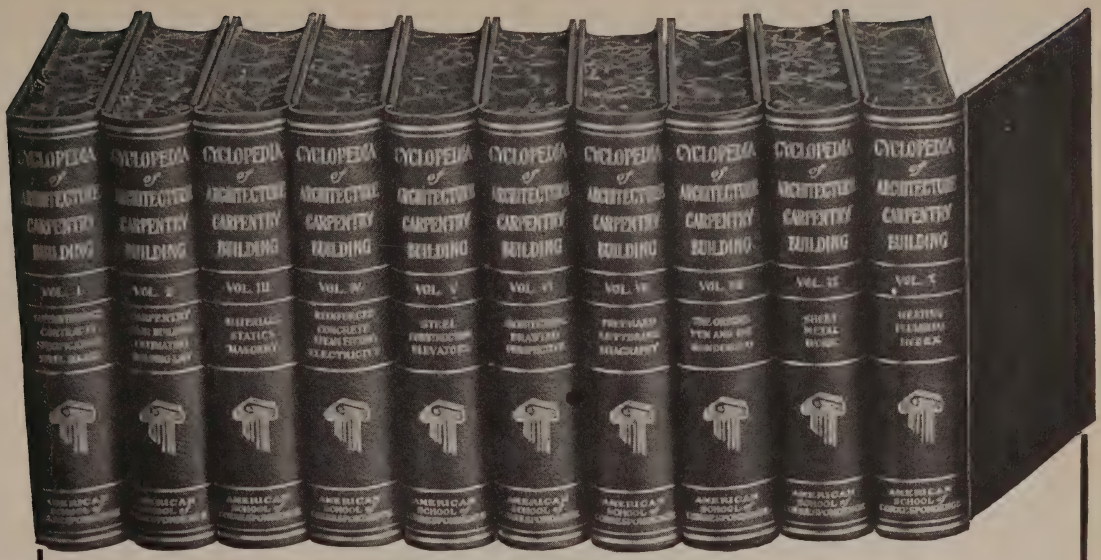

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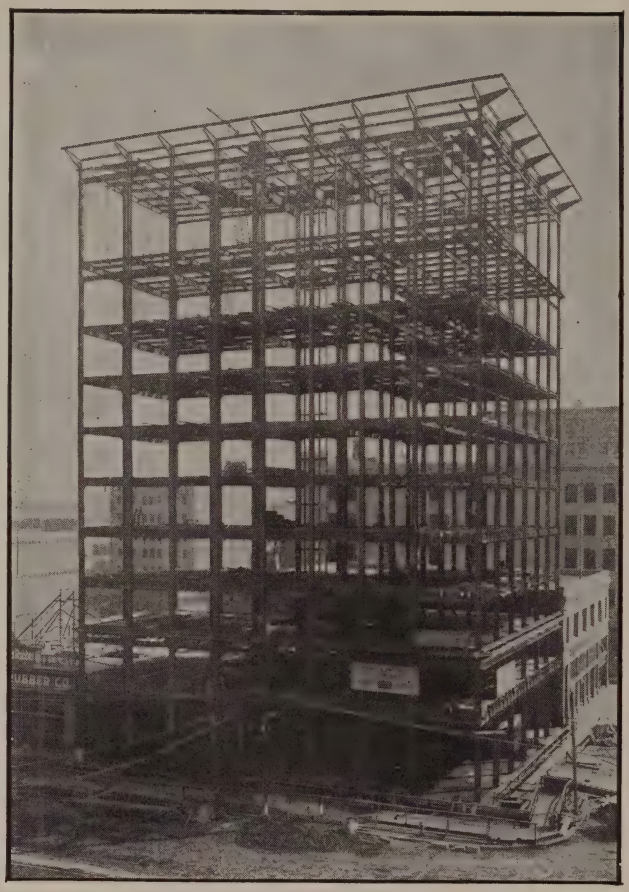

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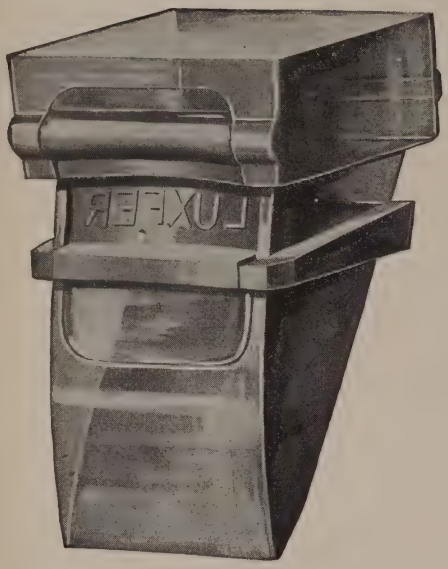

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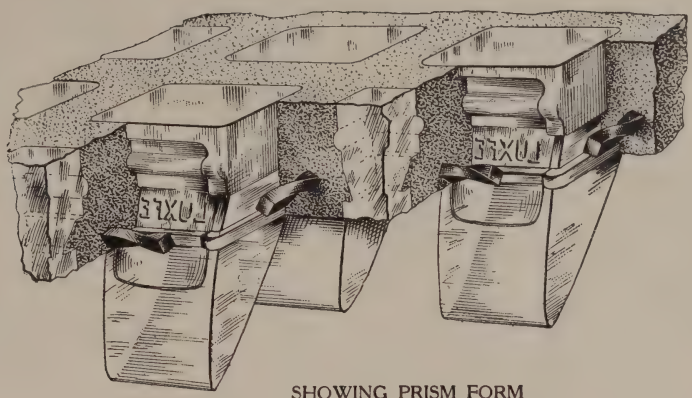

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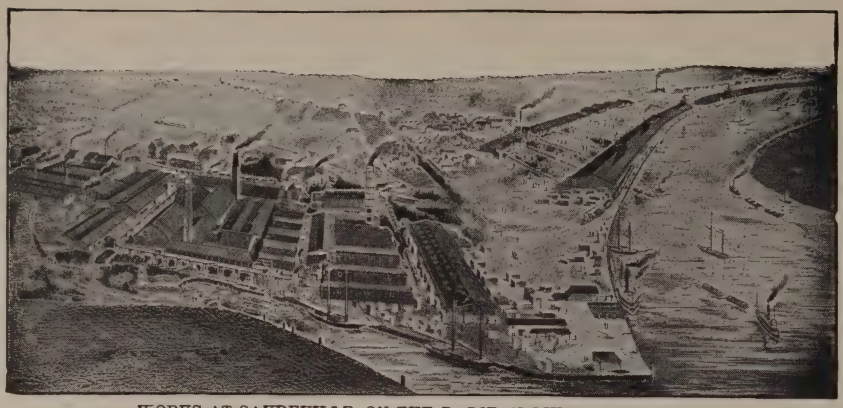

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THE ARCHITECTURAL RECORD

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The
Architectural Record

Vol. XXIII APRIL, 1908. No. 4.

The Influence of the Ecole des Beaux-Arts On Our Architectural Education

This article is the second of a series beginning in the issue of November, 1907, and dealing with the influence which the Paris School of Fine Arts has exerted in the United States. The author is Professor Hamlin, Executive Head of the School of Architecture at Columbia University in New York. While Mr. J. Stewart Barney, author of the first article, treats his subject from the standpoint of a practicing architect, and in its direct influence on American architecture, the author of the present article assumes a scholastic position which his experience as a teacher of architectural subjects and as a director of architectural instruction qualifies him eminently to assume.

Many of our architect-readers will, no doubt, fall in with Professor Hamlin's ideas and sympathize with his attitude, while as many more will hold other views. We trust that all our readers, not only the architects, will take some measure of interest in a subject the object lessons of which are ever before the public.—Editors.

It is now somewhat over fifty years since the late Richard M. Hunt entered the Paris Ecole des Beaux-Arts, the first of the long line of American students of architecture who have sought the discipline and inspiration proffered by that hospitable institution. For a half-century the stream of American students into the Ecole has continued in increasing numbers, and through them the Paris school has become a potent influence on American architecture. Whether this has been, on the whole, a salutary influence in the past, is so now, or will be in the future, are questions which are being asked with increasing frequency and receiving divers answers from different sources. The first of these three questions is chiefly historical; the second demands a critical estimate of contemporary tendencies; the third is a very practical and personal question for many a parent and many a student, for it involves the problem of the most desirable architectural education and of the disposal of several of the most critical years of a young man's life. Perhaps the opinions of an old-time Beaux-Arts student (1878-81), whose active life for twenty-five years has been chiefly devoted to this problem as a teacher of architecture, may be of some interest to readers of the Architectural Record.

I.

So far as the past is concerned, the debt of American architecture to the French school is incontestable. During the Civil War, and the ten years each preceding and following it, our architecture was floundering in the lowest depths of tastelessness and artistic poverty. There were few educated architects; the popular standards were almost grotesquely inartistic, and really fine architecture was nearly as impossible to execute as unlikely to be appreciated. A few brave souls were, however, striving, in the face of these conditions, to raise the standards of public taste and of the profession, by the quality of their own work as well as by their training of young men in their offices, whom

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they fired with the enthusiasm of their own zeal. Three names stand foremost in this roll of honor: R. M. Hunt, H. H. Richardson and W. R. Ware; and all three drew from Paris a large part of their inspiration; Mr. Hunt and Mr. Richardson for the educational work they carried on in their offices, as well as for their professional achievements in practice; Mr. Ware for the organization of the earliest American school of architecture in the Massachusetts Institute of Technology in Boston.* Until the beginning of the great art revival which dates from 1876, these three were like "voices crying in the wilderness," but in the following years their labors began to bear fruit, and they became acknowledged leaders in the movement. By 1880 there were constantly a dozen or fifteen Americans in the Ecole at Paris; there were in our own country three schools of architecture, with a fourth about to be opened in Columbia University; scores of American students returned from Paris were practicing for themselves or helping to build up the reputation of great offices in which they worked. In all the schools, Paris-trained men were in demand as instructors, and an entirely new standard and style of draftsmanship and design were being established in the profession.

The contribution of Paris to our architecture during this period was threefold: It supplied a professional training at that time unattainable elsewhere; it gave us new standards of draftsmanship; and it taught our architects new ideas of monumental planning and composition. It is hard now to realize the poverty of ideals formerly prevailing even in the offices, the general lack of broad and monumental conceptions, both in the planning and in the interior composition of our buildings, to say nothing of the poor and flimsy construction then tolerated and of the uninspired mechanical draftsmanship with which the architects' designs were presented. It is almost wholly due to the direct and indirect influence of the Paris school that we have emerged from the shadows of those dark ages, and that our architecture has taken on a character of straightforward design and rational and often artistic planning and composition, unknown thirty years ago.

During this period there was very little direct copying or imitation of French models. The foreign influence was felt less in the types and details of American buildings than in a new spirit, new standards and ideals. It would be difficult to name a building of Mr. Hunt's which betrays any notable analogies to Ecole types. Even his fine *néo-grec* Lenox Library is a strongly individual design. Mr. Richardson abandoned Renaissance *motifs* for the Romanesque very early in his career. But as the number of Paris-trained architects and draftsmen increased and as the constantly swelling tide of travel to Europe and the multiplication of periodicals and illustrations made our people more and more familiar with the foreign masterpieces of architecture, it was inevitable that the Parisian influence should extend itself to the details, and perceptibly modify the types of our public architecture. Moreover, the Ecole had furnished the model upon which all our American schools were shaping the teaching of design, and in a majority of cases for the last twenty years and more the instructors in design in these schools have been Paris-trained men, and in many instances Frenchmen. When we add to these influences that of the many ateliers in widely separated cities, organized under the auspices of the Society of Beaux-Arts Architects, during the last fourteen years, we see an array of agencies for disseminating French ideas and methods which abundantly explains their present vogue.

II.

Whether this influence is at present salutary or the reverse is our second question. How far is it based on solid merit and how far on superficial appearances and fictitious excellences? And do the merits of the French system outweigh its defects? It must be borne

*Professor Ware was not himself a student in the Beaux-Arts, but he was a pupil of Hunt's and based his organization of the Boston school largely on the model of the Ecole, which he was familiar with and had visited in 1865-'66.

in mind that the teaching of the Paris school has not always been uniform and unchanging, either in its controlling ideas or its details. Art in France has been too vital to resist the influences of progress or even of prevailing fashions. But it has always rested upon a solid basis of accumulated experience and tradition which has grown up since the founding of the school under Louis XIV. This solid structure of crystallized experience has seemed to many too inert for real efficiency, and its tendency has, no doubt, always been toward conservatism. For this very reason, while its methods and details have varied from time to time, it has on the whole successfully resisted the vagaries, fads and novelties which so often tempt the educator from the safer paths of discipline into wasteful and unhappy experiments. Originality and innovation belong to the designer's maturity; the discipline most needed by the student is in the fundamentals of architectural conception and expression; and the traditions of the Paris school have always tended to curb his eccentricities and to teach him to do well and thoroughly the accepted and established thing. This is the function of the "plan type" and the "parti type" of so many of the familiar problems given out. The fundamental importance of the plan is always insisted upon; composition is exalted above detail; the presentation or "rendering" is according to well-developed principles and traditions. The student is made to study and re-study his design in all its aspects, to draw and re-draw, constantly revising the design—plan, section and elevation being carried along more or less together through all these revisions. In the daily criticism of the fellow-students as well as the occasional criticisms of the *patron,* it is primarily the artistic considerations that are emphasized. It is a somewhat conventional system and tradition, but a very salutary discipline for the youngster. It has the qualities of its defects; it is not "practical" but artistic in its aims and spirit. It does not encourage the study of mechanical and utilitarian details; that is perhaps its weakness. But it does open the student's eyes to the artistic factors and possibilities of the problem. It accustoms him to thinking of the building as an artistic unit, as primarily and always a work of art, an object of artistic design in plan, composition and detail.

It is, no doubt, these qualities in the Paris teaching which have most attracted American students. The atmosphere of American city life is not artistic. Utility and cost are dominant considerations in nearly all public enterprises. The whole pressure of our feverish material activity tends to crush out the vital spark of imagination, and to relegate beauty to the lowest place among the factors of design; witness the lack of decorative sculpture and of imaginative mural decoration in our architecture generally. In the Paris school the American student breathes a different atmosphere, aesthetically exhilarating and illuminating. When he returns, the material considerations impose themselves upon him as before, but they weigh less heavily upon him. If he has really profited by his sojourn abroad, imagination and a more highly artistic taste will assert themselves in all his future work.

Incidental, moreover, to this discipline are other factors of great importance. The French have a peculiar skill in the sort of suggestive criticism which the student needs; a quick perception both of faults and merits, an incisive manner of statement, which are very stimulating. The atelier traditions of mutual help between the younger and older students are valued by every one who has come under them, at least in his younger days. Equally valuable surely is the environment of the student, surrounded as he is by notable monuments of architecture and galleries filled with the masterpieces of all the ages. The whole city is a museum, and within a few hours' ride are hundreds of superb buildings, ancient, mediaeval and modern. The treasures of Rome and Italy, the cathedrals of England and the picturesque monuments of Spain and of Germany, may be visited at the cost of a trip like that from New York to Buffalo or Chicago. The unconscious education of the Old World environment is as important, often, as

the conscious training of the atelier. These combined advantages quite suffice to explain the popularity of the Ecole with American students; while the facility and ready resource in draftsmanship and often in design, which they there acquire, accounts for the demand which always exists in the offices for their services.

But conditions change, and it has now become a pertinent question whether what these young men have thus gained abroad is really what is most needed here. Is the influence they bring to bear upon our current architecture wholly an advantage? The answer is not as easy as was that to the first question of the three we have propounded.

In the first place, there are now in the United States five or six large and important schools of architecture and three or four others in the second rank, besides a considerable number of departments giving architectural instruction, in technical schools and other institutions. To these must be added not only the very extensive work in design conducted by the Society of Beaux-Arts Architects, but innumerable evening classes in various cities. There has thus grown up in this country a vast apparatus for the teaching of architecture to all grades and classes of students, from the office boy to the advanced post-graduate. There is no danger of such a dearth of draftsmen, possessed of at least an elementary training, as existed twenty-five years ago, nor is Paris any longer the one place in the world where a really efficient and artistic training can be had. Moreover, our architecture has undergone an extraordinary evolution—almost a revolution—since the Centennial of 1876; indeed, since the Columbian Fair at Chicago. It has advanced along two lines, that of monumental planning and composition, thanks largely to the earlier influences of the Paris school and schoolmen; and that of scientific construction, as a result of wholly native American initiative. Thus we have been outgrowing the need of absolute reliance on Parisian inspiration on the one hand, while on the other we have been developing wholly new types for which the traditional French architecture has no analogues and can furnish little suggestion —at least little that is really appropriate.

Now if the hosts of returning Ecole men had been always able to distinguish between what is fundamental and what is superficial in their Parisian experiences, there would be less question of the value of their training as a preparation for American practice. But it would seem that many of them have been dazzled with a false glamour, or bewitched by the artistic jargon and cant of the ateliers, into glorifying the superficial and the external, and forgetting the eternal and fundamental principles which give whatever is valuable to their foreign training. Confused and bewildered by the lack of correspondence between the ideals of the atelier and the conditions which here confront them, such men have with little discrimination unloaded upon their operations and office buildings, their houses and chapels and stables, the stock forms of the atelier. And the often uneducated youths whose cleverness with pen and brush has won them mentions and medals in Beaux-Arts competitions in our own cities, have imitated and sometimes surpassed the foreign-trained men in the adoption of the French architectural vernacular for the buildings they have designed, "Cartouche architecture" has become a byword in New York. And the very cleverness of presentation, the technical skill of draftsmanship, the facility with which these forms are used, help the vogue of this mistaken art among the uncritical, while they discredit at the same time such elements as are really sound in the training of these young men, among those who, with truer taste discern the hollowness of this architectural trickery.

Moreover, there has been, whether justly or not, but unmistakably growing, among the older men, including many who gratefully acknowledge the value of their own Paris studies, a feeling that the Ecole is no longer wholly true to the best of its old traditions. We are no doubt naturally *laudatores temporis acti,* or it may be, on the other hand, that the

Ecole training seems to us less sound now than it used to be, not because the old ways were better in Paris than now, but because the new ways are better here than they once were. We try to take a detached view in judging both the old and the new alike in Paris and in the United States, and we believe that the Ecole draftsmanship is to-day less thorough, less careful and studied than it once was, and that the pursuit of the new has to some extent diverted the Ecole from the pursuit of the beautiful. This may be a transition to better things which shall be both new and beautiful, but even if it so be, the present state of the Ecole training—its spirit and its standards—seem to us to-day less fitted to train the young American's taste and artistic habits for the special problems of his professional career than was formerly the case. Our own schools do the work more efficiently and fittingly in almost all particulars. Certainly in all that relates to construction and practice, as well as to the history and theory of the art, the teaching in our leading schools is fully equal if not superior to that of the Ecole. I say this with full recognition of the fact that Julien Guadet, the author of the famous treatise on the Theory of Architecture, still lectures at the Beaux-Arts. Feeble as he is, in his advanced years, his discourses on the fundamental principles are stimulating and suggestive; but for American students what he has to say of the planning of theatres and libraries, hospitals and schools and churches, is either so far removed from American ideas and practice or so far behind them as to be a detriment rather than an advantage to the American.

The same is, in the judgment of many thoughtful men, true of the entire course for the *diplôme*—that crowning honor which looms so large in the estimation of many young Americans. In France the *diplôme* has official significance and prestige; it is a passport to government employ, and its value both in a business way and socially is very great. It has, of course, no such significance here, and the prestige of the postscription *Diplômé par le gouvernement* is with us variable and problematic. It costs the American student four to six years of study in Paris. If he has already taken a four years' course in an American school of architecture, it means that he has devoted two or three years of his time in Paris merely to repeating what he has already gone over in the American school; and that, of the remaining two or three years the greater part is devoted to the study of methods of construction and practice wholly foreign to our systems, and the rest to advanced work in design which constitutes the only really valuable part of the whole long program. And even this advanced work in design might have been carried on in the American school. All the larger schools of this country are perfectly well equipped for such post-graduate work in design, and teach it in the judgment of many quite as well as it is done in Paris.*

III.

Coming, then, to the third and last of our questions, that as to the future value of the French influence and training, my own convictions have been by recent experience greatly strengthened on the following propositions:

First, that so far as actual professional training is concerned the American schools are doing, and will in the future continue to do, better and more efficient

*This last statement will, I fear, be condemned as rank heresy by the thick-and-thin advocates of study in Paris. But certain recent experiences are valid evidence in its support. For some years past graduate and advanced non-graduate students registered in the Columbia University school have been doing their work in design in Paris ateliers, upon programs sent out by the Columbia Committee on Design, and have sent their work back to be judged by the same juries which pass upon the work of the Morningside Heights students. These juries are composed of the heads or associate directors of the three Columbia ateliers with from one to three "outside" architects from downtown offices. In every case, so far as I know, every member of the jury has been a Beaux-Arts man, so that there could have been no prejudice against the Paris men or their work. Yet *in every instance* the jury has pronounced that work disappointing in quality, both as to design and presentation, and has ranked it on the average below the work of the students in New York. It will be interesting to note whether the continuance of this international experiment further confirms the verdict of the juries referred to. I do not care to attach too much importance to these results, but I think they tend to disprove the superstition, founded upon conditions that have passed away, that the teaching of design in Paris is so greatly superior to our own as to be worth the sacrifice of four or five precious years of the student's life after graduation from the American school.

work for Americans than the Paris school is doing or can do in all that relates to the history, theory, science and practice of the profession. Why should they not? They have adopted from the French school all that has been found in its methods to be best fitted for American conditions; they have added to these the accumulated results of American experience and the best of American methods; they are officered by teachers thoroughly trained and full of devotion and enthusiasm; they are for the most part admirably housed and equipped, and they naturally appreciate American requirements and conditions as the French school and teachers can never do.

Secondly, even in the field of design the American teaching is now fully on a par with the French, and must in the future become increasingly well adapted to the special needs and conditions of American practice, and, so far forth, better for Americans than even the brilliant French teaching.

Thirdly, in the nature of things American architecture cannot and should not continue to be dependent upon French ideas, taste, or training. Ours is a strong and progressive art, capable of standing on its own feet and of developing its own ideals, its own practitioners and its own training. The glamor of French artistic pre-eminence, real as that pre-eminence has been and still is in many fields, has tended, in the judgment of many to keep our art too long in leading strings, and—especially in architecture—to hamper free and normal development along the lines of American thought and taste. As a result much of our architecture, even when excellently planned and admirably and scientifically constructed, masquerades in a dress essentially foreign and exotic. It seems to me high time to break these leading-strings, and to develop our architecture, as our engineers have developed their engineering, independently of any foreign practice or foreign fashions.

Fourthly, for such Americans as can afford to devote three or four years to further professional studies, after graduating from a first-class American school of architecture, two years of Parisian *atelier* work on advanced problems followed by one or two years of European travel and study—including if possible a full year in Italy or in Italy and Greece—provide a far broader, safer and more profitable discipline than the same length of time devoted to study in the Ecole, whether for the *diplôme* or not, with merely incidental short sight-seeing and sketching trips between the problems. In two years, perhaps even in one, an American graduate can get all that is best worth while in the Parisian training—its *camaraderie,* its artistic spirit, its environment, the French point of view—without being carried away by the fictitious and misleading affectation of artistic seriousness which in time seduces the judgment of the most sensible American and makes him believe that the continued solution of French Ecole problems is the one only path to architectural salvation and the hope of future glory. It is a pleasant infatuation, from which it takes years to recover; but it is an infatuation contrary to reason, for it elevates the atelier problem into a rank as discipline for American architects superior to the discipline of actual struggle with American problems under American conditions. All that is fundamental, the ground-conceptions of art and logic that underlie the best French teaching, an intelligent American graduate ought to master in a year's work in the atelier. It is in my judgment a sad waste of time and strength for American graduates to spend the better part of a year in trying to "make" the Ecole, reviewing elementary subjects in which they were examined four or five years agone; and then spending precious months on "analytiques" and order-problems such as they have already had their fill of in the early years of their American schooling; at last, at the end of two or three years "making" the First Class, to begin on problems like those of their fourth year at the home school; and finally returning with their precious *diplômes* to begin office work nine or ten years from the time they first entered on their architectural studies. The fruit is hardly worth the cost of its raising; *le jeu ne vaut pas la chandelle.*

Nay, I would go further. I would even question at the outset the necessity or wisdom of going to Paris at all to study, except as a part of a scheme of travel-study covering all the great architectural centers. If the student must enter an atelier, let him do it for the purpose of broadening his culture by a year's work under foreign masters and according to foreign methods. Then let him go to Rome and Northern Italy, the centers from which, in the early middle ages and again in the Renaissance, flowed the streams of influence which helped make the great architecture of Western Europe. Let him visit Constantinople and see for himself the grandest interior ever erected for religious worship. Let him visit the Mediterranean countries, and the great medieval cathedrals, or study the work of modern architects in Germany and England. A year thus spent after a year in Paris —two years in all—would furnish a splendid education of the greatest possible artistic and cultural value, broadening and not narrowing, as the French atelier training too often proves, and at less than half the cost, in time, of the five or six years' grind for the *diplôme*. I believe if all our young graduates would follow such a program our national architecture would rapidly develop a freshness, a freedom, a self-reliance and boldness of style and expression which it now greatly lacks, and which dependence on Parisian models and training can never give it.

I have written this with full and grateful realization of the great debt we owe to the Ecole; with full appreciation of the excellence of its methods, of its high ideals, and of its admirable performance. The minor fads which prevail in it from time to time, the recipes and formulae of this or that atelier, "spinning processes" and infallible systems for solving all problems, these do not disturb my admiration for its splendid achievements and for what is sound and true in its traditions and its ideals. They are only the froth upon its deeper currents. But I believe we have outgrown our dependence upon it, and that with our present civilization, culture and educational resources, we shall present an astonishing spectacle to the world if we continue to send every year scores of graduate students to lay on the Ecole shrine the offering of four or five of their best years. The tide that once rolled from America to the German universities has dwindled to almost nothing. I foresee a day in the near future when American graduates in architecture will cease frequenting the courts and halls of the Paris Ecole. Nay, I dare to forecast the coming of a day in the future, not too far distant, when French students will come to America to study architecture, seeking fresh inspiration, a new point of view, a new enthusiasm, in the study of an architecture as verile, as fresh and independent in its ideas as the American people itself. The sooner we emancipate our art from dependence upon Paris the sooner will that day come. *A. D. F. Hamlin.*

Atlantic City, N. J. THE MARLBOROUGH-BLENHEIM HOTEL. Price & McLanahan, Architects.

Architectural Expression in a New Material

Practical and Ethical Problems of Design in Reinforced Concrete

The principle of reinforcement by means of steel rods, wire mesh or light bars in truss form has given to concrete a leading place among structural materials. It marks a departure in many essentials from traditional construction, and therefore must exert a like influence upon design. For this reason it has become a subject of absorbing interest in the architectural world, as it presents new problems not only of structure, but also of ornamental and, possibly, even of stylistic expression. The many practical advantages of concrete and the increasing scarcity of lumber assure it a prominent place in the architecture of the future.

Quite a little work which has already been produced is suggestive of appropriate treatment of form and surface. Still, the bulk of concrete building so far has been on purely commercial or engineering lines. We are as yet feeling our way on the outskirts of a new field of design.

The questions that arise as to the proper range and limitations in expression of structural concrete and surmise as to the lines of development likely to be adopted divide themselves into somewhat the following lines of thought:

First.—The characteristics of the constructive system and qualities of the material and wherein these are distinctly at variance with present-day or traditional form in current use; which form was created in other materials and systems of stability. Deductions, following of necessity, as to artistic and consistent expression in logical accord with constructive meanings and not inappropriately imitative.

Second.—Physical and mechanical details and economics of construction must be considered as they may bear upon the practical carrying into effect of the ideas which the logic of architectural expression leads us to attempt. Such matters, for instance, as the various surface textures to be obtained by different methods of finishing and by choice of aggregates, limitations of form work and other points of relative ease or difficulty of execution.

Third.—Study of the subject on such lines as above will reveal the essentials of concrete, in contrast to other materials and the traditional forms of architecture. But when we have arrived at this point we will know more of what *not* to do than of what to do. Having determined what to avoid, we will find the gate is opened upon original opportunities of surface treatment, as the incrustation of tile, contrast of plain surface with color ornament and wrought metal; motives of delightful promise, and in which some successful work has already been accomplished. But, bound as our design conceptions necessarily are to forms and details handed down to us and expressive for the most part of the constructive meanings of other materials than concrete; and, in view of the fact that this new construction is being introduced for buildings of varied character and great size, some interesting issues arise as to rational design and composition. A style that has marked individuality rather than adaptability may be ill suited to the wide variation of motives existing between different classes of modern buildings. Those of small scale and simple composition present a problem of comparatively plain and harmonious solution. More complex structure, on the other hand, introduces decidedly more intricate questions of design ethics. The wall and roof motive of a two-story country dwelling is a problem much more suggestive of artistic solution than a pier and girder and curtain-wall construction on a large scale. The necessity for considerable compromise with classicism and the lan-

guage of masonry will probably be recognized if we are to achieve much dignity of design with the latter variety of building. We will also probably conclude that the best progress will be made by slow development rather than by revolutionary measures.

THE LOGIC OF CONCRETE.

Concrete is by no means a new building material, but not until recently did it occupy any but a secondary position. The Romans were the most notable users of this material, though entirely as a useful substitute for more costly masonry or as a material for rough walls which would be faced with stone or brick. The articulations natural to the latter materials would therefore be expressed: the concrete was merely a backing.

Stucco was sometimes used as a finish for walls. This had been a quite frequent method in still earlier times, and was again later, in the Italian Renaissance, when architectural masonry detail was much imitated in this medium. The same thing is done very frequently today.

In stucco over brick or rubble masonry (which is a rough concrete) the primary motives of concrete may be suggested but not fully expressed. The building is not entirely monolithic, though it often approaches this, in impression more than reality. Its walls, at least, are single masses instead of being made up of cut and jointed small units. Except, however, for dead weight support, the constructive office of concrete is not expressed. Therefore the meaning of lintels, arches and of all members detached from the mass is not of concrete, but of stone or wood. Even though these are superficially in cement, they retain the forms of the other materials in which they were originally created, because the actual construction is still upon the principles of those materials. However, the suggestive treatment of stuccoed walls and the imitations of architectural forms in plastic cement or stucco furnish an introduction to the motives of structural concrete, architecturally considered. It is the intermediate phase between the latter and the architecture of small jointed units built up on the static principles of column and lintel or arch.

In recent years a large number of well-designed country houses have been executed in stucco laid over wire lath or brick. Frequently merely the wall surfaces are stuccoed; features, such as columns, cornices, eaves, being in wood, stone or brick, as the case may be. In other examples, architectural members and ornaments have been cast in cement; the composition and detail in such designs is, however, invariably masonry architecture executed in a substitute material. It must, at the same time, be admitted that there is more certainty of producing beauty of form by this means than by relying upon our present inexperience for a more logical expression of the material. But this is anticipating our arguments. The truth of what has been said just above is evident in the examples which have been selected for illustration as typical of present design that makes use of stucco surface, but otherwise follows conventional construction and architecture. The cottage shown in the first illustration possesses the simplicity, the plastic suggestiveness of a genuine concrete building, having roof and minor accessories in wood. The large house at Roslyn, L. I., reveals a composition of much beauty and academic feeling. The walls are brick, covered with stucco; the architectural features are cast in cement; the terrace wall is concrete, cement faced in forms. The design, however, is entirely conceived in terms of stone; cement and stucco have been adopted as a substitute, evidently, not from choice.

The stucco building, when it can break away from being a replica of stonework executed in a cheaper material, tends to develop a plasticity of treatment, a monolithic breadth and surface texture of its own. There is little distinction, as a matter of design, between plastering mortar on walls of brick, clay blocks or concrete, if the latter is not part of a reinforced monolith. A solid concrete wall is scarcely more than a form of rubble masonry,

AN EXAMPLE OF STUCCO ON WIRE LATH—RESIDENCE AT GLENS FALLS, N. Y.
(By courtesy of Atlas Portland Cement Company.)

but one which the fineness of the aggregate makes it easier to render with a presentable surface. But the development of concrete construction has advanced considerably beyond this.

Several methods are now in vogue in which concrete is used, with greater or less completeness, as the structural material. First, there is the above-described stucco on brick or on metal lath over frame. This cannot be classed as concrete architecture, except in so far as it implies some of the same motives to a limited degree, having superficially the plasticity of cement. It is often attractive, but is contradictory, and therefore must borrow and imitate whenever the simple value of surface seems insufficient and form is indulged in.

Then we have concrete block construction, but this method possesses even less of the real characteristics of concrete. It is, in fact, purely a work in artificial stone. Very few attempts have been made to treat concrete blocks with any artistic sense; when it has been done, however, using large blocks finished to closely imitate real stone and designing all features just as for stone, it has been shown to be not without scope. However, it is unproductive of new thought in design, beyond the matter of finish to imitate something else.

Lastly, we have genuine concrete construction. The French first developed the system of *ciment armé*. Ten years ago they were building structures of considerable size of concrete, in which were embedded iron rods or mesh, so disposed in walls, girders and other structural members as to supply the tensile strength that concrete lacks. Since then this principle has been worked out with great precision of detail, both scientifically and commercially. Though the science is still young, it is practical to apply it to the entire frame of a building—columns, piers, roof, girders and beams, as well as walls.

One thing is at once strikingly apparent, namely, the much greater slenderness of the construction as compared to masonry. Walls may be thinner and spans of girders longer than we are used to seeing. Steel frame construction has, to be sure, accustomed us to much of this, particularly as to slender verticals. But this is quite a reversal of the usual conception of concrete, as massive and inert, which it is to be sure when used alone. So concrete must be considered from now on as a material with essentially new functions and possibilities of expression.

First of its characteristics as an architectural material is its *plasticity*. Technical language adopts the term "pouring into the forms," which concisely implies the impressionable nature of the medium, while it describes the actual method of emplacement. Such material calls naturally for moulded, flowing forms growing out of the body material, in contrast to the principle of detachment of forms and the putting together of them in small units, which ideas govern architectural construction and ornament in stone.

Concrete structure is not merely plastic and lending itself to treatment in large masses; it is *monolithic*. This is the second characteristic of general import, carrying with it the distinction we have just noted. The indication of joints is of course illogical, because such would be merely a pretense of what does not actually exist.

Furthermore, in dealing logically with concrete we must revise many of our most deeply seated notions regarding stability. Two motives are fundamentally concerned with all architecture: the one is the pier or column and lintel, the other the arch, with its inferences of thrusts and balanced equipoise. Concrete, to be sure, does not suppress these elements of construction, but functional relations of the component parts are altered by the fact that not only are the base, shaft and cap fused in one, but the lintel or the arch itself becomes practically one uniform mass with the pier by virtue of the interwoven reinforcement. In consequence, the meaning of many of the members of the conventional order, which has maintained its integrity from the days of Athens to our own, disappears in monolithic construction. The capital may remain, at least in the abstract; some indication be-

MASONRY MOTIVES RENDERED IN STUCCO—W. L. STOW RESIDENCE. John Russell Pope, Architect.

Roslyn, L. I.

ing announced of weight concentrated and supported. And the capital is always a spot proper to emphasize by the use of some ornament. Architrave and frieze have no separate identity, though, if the expression of monolithic form is rightly interpreted. A projecting cornice, of course, has perfect reason; in the mouldings that should compose it, however, modilions or brackets have no logical place. A concrete arch, not being composed of voussoirs and key block, should not present a pretense of them by indicating imaginary joints. A chamfer moulding is about the extent of articulation which should be allowed, though the crown may be chosen with propriety as a place for enrichment, if this is wanted for its value in a scheme of ornament and if the convention of a wedged and functional key is avoided.

There is a novel slenderness and great beauty of line in the arched forms to which reinforced concrete may be adapted, particularly in bridge work. In general construction the tendency is to long spans and segmental or elliptical sections. It may be observed, in speaking of the arch, that the fundamental distinction between arch and beam or lintel has really disappeared. Spanning an opening horizontally does not necessarily imply the principle of the beam, since we may have an arch of keyed stones with a flat soffit. The distinction arises in whether the member is a single unit of material or several units with radiating joints and, as a consequence, requiring of its supports either a passive vertical resistance or one which must also meet an outward thrust. With reinforced concrete all horizontal spans are the same in constructive system and, for that matter, the only principle of importance that differentiates a curved form of span from a beam is that of the strain line for the particular loads, which, in turn, determines the curve of the arch, if it is to be other than semicircular, and the necessary dimensions of an abutment. But such an arch may be more accurately defined as a curved truss; therefore the arch, as understood in masonry, does not exist in reinforced concrete.

Arched or domed roofs and various forms of vaulting are practical possibilities of reinforced concrete, though the occasions that permit of ceilings of such character and in durable materials are rare.

It will be seen from these tendencies that logical form, as it may be expressed architecturally in concrete, makes for severity and simplicity. In all former styles the emphasis of joint lines has been a favorite mode of expression. In this new material plain surface must be mostly depended upon. Conventional form, as it has been handed down to us, is permeated with the feeling of the cutter's tools. One sees this in the straight lines and sharpness of mouldings and in clear-cut carving. Concrete ornament should show evidences of modeling rather than sculpturesque quality. Line has diminished in importance, surface and color have gained. Mechanically, as well as æsthetically, the elaborate forms of stone architecture, heavily projected and accurately finished, are contrary to the nature of concrete and the methods used in its erection.

Since so much that has seemed positively essential to design, at least for all large problems where formal elaboration is called for, is denied the concrete designer he must evidently either veneer the structure with other materials in the same unrelated manner as is done with a steel frame, or must seek other sources of inspiration. A motive prolific in opportunities is offered in the use of faience and tile. Pattern is the natural form of enrichment for flat surface, and nothing is more consistently in harmony with the unmechanic and plastic, though durable, surface of concrete than ceramic tile and faience. The tile may be modeled in low relief, or, again, may be mosaic inlays of colored marbles or terra cottas in geometric patterns. The quality of the concrete surface permits an expression of the hand-made rather than of the mechanically finished.

Some ideas which have already been developed along the lines of tile mosaic are shown in the accompanying illustrations. Attention is particularly called to the all-concrete house at South Orange,

REINFORCED CONCRETE—RESIDENCE AT JAMAICA, B. W. I.
(By courtesy of Atlas Portland Cement Company.)

which will be referred to again. A house on the island of Jamaica, a photograph of which is also given, leans rather more to derived architectural form, but is appropriately designed for its setting, and, except perhaps in the colonnade, is a logical statement of concrete form.

ENTRANCE TO THE PONCE DE LEON.

St. Augustine, Fla. Carrère & Hastings, Architects.

(Copyright by H. C. White Co.)

Color, of course, may be indulged in without stint. To be sure, it is rather fearful to think what may be in store for us in the way of chromatic outbursts should the speculative suburban builder turn his attention to this subject. In any event, polychromy and incrustation or veneering with thin slabs or tiles in appropriate motives are destined to be leading characteristics of concrete design. Recognized laws of ornament and style will determine the relative value of location and distribution or concentration; capitals, pilaster panels, spandrels, tympana of arches are natural points for accent. As a general rule, such enrichment is more effective when highly concentrated upon certain central motives of a design and allowed to contrast with expanses of plain surface. One of the limitations of decoration of this type is

that it inclines to smallness of scale; thus suggesting its better adaptability to the refinements of a small edifice than to the monumental proportions of a building in the grand manner of the Italian or French tradition. In other words, it is more properly decoration than architecture in a monumental sense.

Fenestration assumes an important place in concrete design. In many compositions there will be an obvious opportunity to strike a contrasting note to plain wall surface by the introduction of richly ornamented metal frames and mullions or sinuous tracery, if the latter would be in harmony with other motives or style used. Wrought-iron balconies, gateways, lanterns will be valuable accessories. We believe, too, that hammered copper for certain purposes, such as copings and cornices, may be used not irrationally and certainly with beauty of effect. Of course, where metal is so applied it should be acknowledged and its characteristics emphasized, not disguised.

When a timber roof is used, eaves and carved wooden brackets can be made of value. The typical treatment for an all-concrete roof is a covering of flat hand-made tile, laid with wide, and, if desired, irregular mortar joints. As such tile can be made in soft and beautiful tones nothing could be finer and pleasingly unmechanical, particularly for domestic work.

The finish and texture and tone of concrete surfaces may be varied according to what seems best to harmonize with the character of particular buildings and designs, as will be referred to more at length presently.

Such are some of the motives, full of imaginative promise, that are open to concrete and that should prove, in the problem of the small building, at any rate, an adequate compensation for the forced abstinence from the architectural formalities we have become accustomed to, but which are phrased so entirely in the language of stone.

THE ECONOMICS OF CONCRETE.

The use of reinforced concrete in engineering works and for factory buildings has increased at an enormous rate in the last few years. For suburban houses, garages and other small buildings it has also made fair progress. In the field of larger buildings the advance has been much slower. This has been due partly to architectural doubts and partly to uncertainty as to whether the practical advantages and cost saving might not be offset by greater disadvantages and limitations. We think the balance is swinging more and more in favor of concrete as a practical method of construction for an increasing variety of purposes. But, whether or not the tentative efforts that have been made up to date mark an experiment that will be abandoned before long, as far as large constructions and their architectural requirements are concerned, will depend ultimately upon economic questions. The most constant and obtrusive objection is in the expense and difficulty of form work where a design departs from plain surfaces and does not permit of much repetition of the same units. This will no doubt enforce upon concrete design a confinement to very simple treatment, except in so far as it may combine other materials with itself to supplement these restrictions.

The economic advantages which pertain to reinforced concrete are based upon the scientific use of concrete and steel, so united in a section as to obtain the greatest benefit from each. Steel is vastly more expensive per pound or ton than concrete; but, on the other hand, its unit of tensile stress is 16,000 pounds per square inch against about 50 pounds for concrete. Therefore it is the most economical material for tension and sheer members; while concrete, on the other hand, may be used with greater economy for compression, as its ratio to steel, as to compressive strength, is only about one to thirty. Reinforced concrete is designed upon this principle, and it will readily be seen, even from a rudimentary statement of the matter, why this system has gained ground rapidly where the question of relative cost is foremost and the construction simple. In the factory class of buildings it has been proved to be but a small percentage more costly, in some cases even, it is

claimed that it costs less than brick walls and "mill construction" floors of heavy timber. Also it possesses advantages of heavy load capacity, fire resistance and freedom from vibration that more than offset the slightly increased outlay.

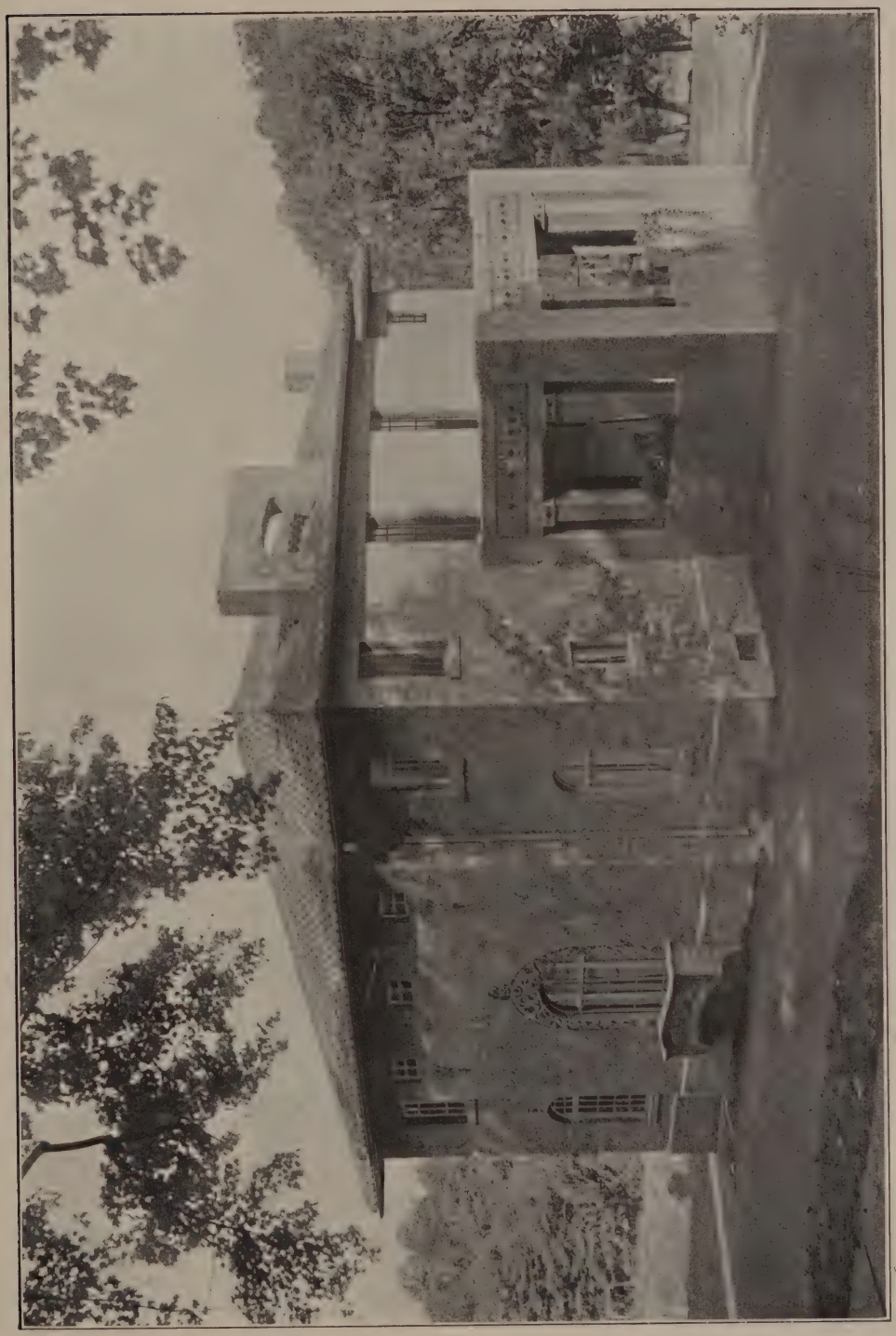
For such reasons it would seem to be merely a matter of a little more familiarity, standardization of formulæ and demonstration of reliability and system in execution to assure a much more widespread popularity, which will embrace buildings of miscellaneous character. No system of construction promises a greater degree of permanence. For a certain class of buildings this is not an advantage, since this construction cannot be taken down or altered with ease, as can be done with buildings put together in the usual manner.

The system adapts itself either to self-supporting walls or curtain walls carried by girders at each story, their load, in turn, transmitted to columns—the method of the steel frame, with the difference that we do not necessarily have to protect the members of the skeleton with brick, tile and stone. The necessary covering of the metal tension bars is done with one to three inches of concrete below or outside them, as the case may be.

As to exterior treatment, some sort of surface finish must be given. Further elaboration of detail depends so entirely upon the type of building that comparison in cost could only be made in each case; but, as a general proposition, the architectural enrichment of a concrete façade should cost no more than one in brick, stone and terra cotta of a corresponding indulgence in design phrases and attainment of architectural effect. Besides, it is a perfectly simple matter to face an exterior, or as much of it as we wish, with a veneer of masonry, concrete in such case simply taking the place of the usual fireproof steel frame. Such a method does not advance architectural design in concrete, but it has been seized upon as a practical and easy solution of the dilemma.

The question, economically, lies principally in the relative costs of the two systems as constructive framework. The fewer the elements of plan and section, the more constant the repetition of unit dimensions, the less will be the expense of concrete, owing to the simplification of form work and rapidity of erection. The point which commands attention is that reinforced concrete is adaptable, constructively, to present commercial requirements for all but some extreme types of buildings, and possesses some primary advantages in the question of cost. To offset this, stand the difficulties incidental to form work. Also, the fact that concrete work cannot be pushed in freezing weather may often be a serious drawback. The science is as yet in a somewhat experimental stage. A calamitous series of failures, due to carelessness or ignorance, has induced conservatism. The greatest care and vigilance of superintendence is necessary. Absolute regularity in proportioning the ingredients, placing the reinforcement, and in other details of execution must be observed, for such errors are quickly hidden and are difficult of correction if detected. The mixing and pouring of concrete requires the minimum of skill, but the maximum of care. Therefore every building in this construction should be superintended as systematically as the most important work of engineering. But with this responsibility realized and accepted and reliability proved, a great obstacle to the use of concrete in important buildings will have been removed. Large building operations, in these days of close figuring of investment return must adhere closely to methods that are precise and certain in results as to cost, time of erection and practicability of all details. Efficient system, certainty and uniformity in meeting customary requirements can only be arrived at gradually by a new constructive system. Examples of a great variety of types of building are, however, already to be found in different parts of the country.

The treatment of surface is one of the most important matters concerned with the architectural possibilities of concrete. As laid up with care, but purely for utility—a rather wet mixture, well tamped in forms of average regularity, being



RESIDENCE OF REINFORCED CONCRETE, WASHED SURFACE EXPOSING AGGREGATES IN THE MIXTURE; TILE-MOSAIC INCRUSTATION.

(By courtesy of Vulcanite Cement Company.)

South Orange, N. J. Tracy & Swartwout, Architects.

used—a fairly smooth, but regular, surface results, a film of mortar settling against the sides of the mould. However, every irregularity and almost every joint of the boarding leaves an imprint. Patches of exposed aggregate show here and there and variations in color occur in streaks and layers. In short, such a surface is not merely dull and uninteresting, its inconsequent irregularities are objectionable. Several methods are in vogue aiming at the production of an even texture and one agreeable to the eye. Two quite opposite effects may be had: one consists in brushing and washing away the cement skin, thus exposing particles of aggregate; in the other method a surface mixture of selected material is applied to the face of the moulds, just ahead of the pouring of the concrete, and, on removal of the forms, the surface may be further finished by washing or tooling.

DETAIL OF REINFORCED CONCRETE RESIDENCE AT SOUTH ORANGE, N. J.
(By courtesy of Vulcanite Cement Company.)

The first of these methods frankly ad-

mits and displays the material as concrete. Some very delightful and varied effects may be obtained by using aggregate of graded sizes and mixing in a certain proportion of pebbles, marble screenings, burned clay or broken brick, flecks of color thus giving an animated texture to the otherwise leaden and lifeless material. Brushing may be done to greater or less depth, giving a more or less roughened surface, as desired. It is necessary to brush and wash the surface while the concrete is still green, as otherwise the process would be too laborious, in fact, would be precluded. Therefore the forms must be removed at about twenty-four hours after placing the concrete. The necessity of removing the form work before the concrete has thoroughly hardened considerably limits the practicability of this process. Load-sustaining sections must be hard before the supporting mould is removed from underneath. Though, where this effect, rather than a smoother finish, is wanted, it should be quite possible to attain it in a measure, even when the concrete is quite hard, by the use of acid and the stone bush hammer. Sufficient of the mortar skin could be removed to obliterate the impression of board veinings and layer marks, and at the same time expose some of the aggregates. After this tool dressing the wall should be brushed down with dilute acid, followed by water played on by a hose to prevent the acid from penetrating. Limestone is barred where acid cleaning is done.

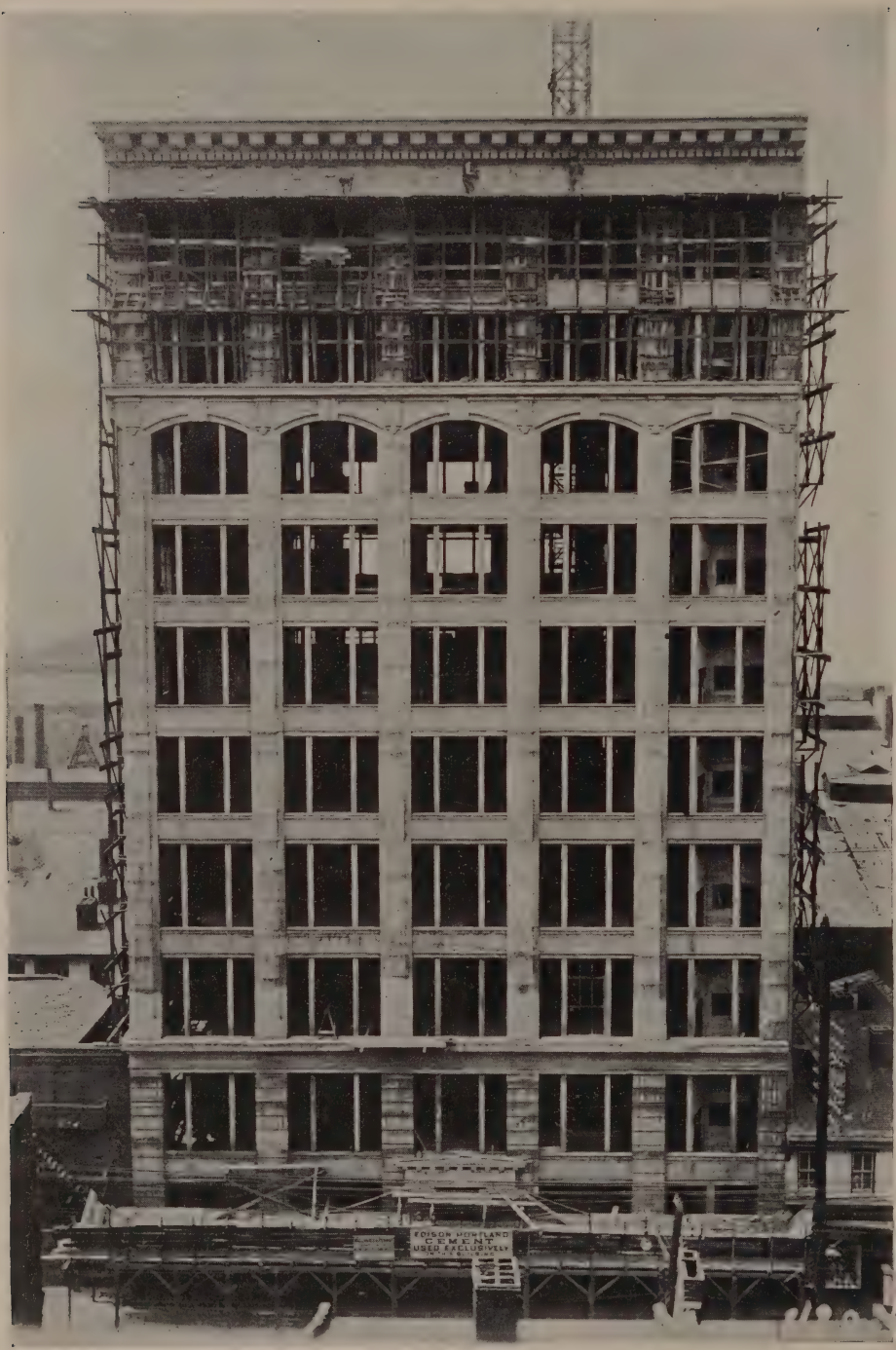
The brush-wash manner produces decidedly the most legitimate surface, the only proper finish, it might even be said, where consistent concrete design and ornament is carried out. As a matter of fact, the method is best suited, for practical reasons, to buildings of small dimensions, and artistically, to those of simple wall composition. This finish was successfully rendered in the interesting house at South Orange, N. J., shown in the illustrations, though the photographs fail to reproduce the color quality.

In the present transitional period, and quite possibly beyond it, a smoother texture, more nearly that of cut stone, will be considered more desirable for many purposes. Such a finish is arrived at by the method known as *mortar facing,* though it is by no means limited to mortar of the ordinary variety. The most primitive fashion of applying is to trowel on a mortar against the face of the form about an inch thick and for the height of the layer about to be laid and to fill in behind and at once with the ordinary concrete, which, of course, firmly unites with it as the mortar is still soft. An improvement insuring greater accuracy is to form a slot by means of a sheet-iron plate specially devised for the purpose, with angles to hold it vertically at a desired distance from the face of the forms. The prepared concrete for the facing is first filled into the slot and immediately afterward the backing is poured and tamped down. Then the plate is raised, allowing the two to be firmly bonded together by ramming. When the forms are removed the facing will require dressing and cleaning down, as, even though the boards have been covered with oil and soap, the soft material will take the impression of grain and joints and efflorescence may break out in spots. A great variety of texture, and of color as well, may, of course, be achieved according to the aggregates selected: glistering marble, gray trap rock, yellow sand and brick dust.

A cheaper method, but one not to be recommended, since more permanent finish is possible, consists in applying a skim coat of mortar to the surface after the building is erected and forms have been removed.

The two principal methods above described, respectively that of outspoken concrete, aggregates showing in relief, and the surfaced—finish, displaying an even, fine texture closely resembling that of cut stone, though it may be coarser, are destined, we think, to characterize two schools of design. Each is in its way legitimate, because in harmony with its own set of ideas and adaptable to widely separated classes of buildings.

As reverse forms must be made for all mouldings and projecting sections, and



THE GLOEKER BUILDING.

Office building type, showing dependence of design upon masonry conventions. Pittsburgh, Pa.

(Photo by courtesy of The Cement Age.)

as economical erection is out of the question where these variations are frequent and complicated, it will be understood why this least expensive and most commonplace form of enrichment for stone and wood becomes, with concrete, a costly and troublesome one. The difficulty of mouldings is therefore out of proportion to the effect gained if we can find a better employment for our efforts in direct and suitable form of expression. At the same time, mouldings cannot be entirely dispensed with, and if simple and of large profile, but not too massive in projection, may come within the reasonable scope of practice. Abrupt projections, as of balconies, are consistent in a material with notable cantilever propensities.

It is simple, on the contrary, to leave recesses in the forms in which blocks of other material may later be inserted. Concrete being so restricted in respect to mouldings, it would appear rational to introduce other materials for occasional emphasis of this kind where line and shadow value may thus be given, which would otherwise be lacking from the design, such materials, of course, to be acknowledged without disguise. A programme, for instance, that offers little opportunity for relief of a monotonous façade by a fine roof or any other feature of projection from the flatness of the wall plane, might make effective use of copper for a rich cornice and parapet, the same material, or bronze, being repeated in the other details as the composition may suggest, so as to carry a thread of the motive through the design. Or, again, marble could be used for a more architectonic phrasing of the centres of interest: an elaborate entrance, moulded column bases, window frames to distinguish the main story, etc. Still more fitting for such purpose, it may be thought, is moulded terra cotta. Yet, as cast to resemble and substitute for stone mouldings and carvings, it is, æsthetically speaking, wrong. In the same category of errors is the casting of large cornices, balustrades or such matters, copied after stone, in concrete poured into sand moulds and afterwards secured in place. As to terra cotta, however, when designed to bring out its own virtues and proper expression, great opportunities exist for harmonious combinations with concrete.

We have not progressed far enough as yet with reinforced concrete for such motives to be carried out in practice with the routine accuracy of the prevalent modes of construction. There are innumerable details in a modern building, all of which must be determined on paper alone with completeness and certitude, and the execution of which must be marked with equal precision. The handling of a building operation is required to be first of all on a strictly commercial basis. Only after the accumulation of much experience, therefore, may we expect, for practical reasons alone, to see concrete design attain half the measure of its possibilities, and up to the present time it has been mostly confined to architectural problems of simple character and engineering ones of comparatively little complication, such as factories. However, it is pushing out gradually into larger fields.

CONCRETE ETHICS IN RELATION TO PRESENT ENVIRONMENT.

Concrete, it would appear, should certainly provide the long-hoped for medium for creative design, untrammeled by convention, as, on the contrary, all work must be which is confined to materials that have been so exhaustively worked over. Yet it cannot be said that many designs of pronounced beauty have as yet been executed. It must be remembered that progress in style formation is evolutional. Evolution, as we know, never goes by leaps and bounds. Even when there is some radical change in thought or habit, external form will only conform by gradual elimination. A new material, revolutionary in certain constructive principles, must in the end produce a complete system of design, a pronounced architectural style. However, such a development may take a long time. Especially in this present age, conception must wait on practicability and economy. The effective range of conceptive design is limited by the external and positive influences that de-

termine structural development and architectural preferences at large. In other words, this problem should be considered not merely in the light of its own logic, but with the realization that results may only be arrived at in terms of present needs and appreciations.

Thus we may have convinced ourselves of the correctness of the thesis, namely, that the conventional form handed down to us in the motives of articulated stone and timber architecture should be abandoned, root and branch, because entirely without relation to monolithic construction; yet further consideration may convince us that too much radicalism is barren of good results and that we cannot break too suddenly with established ideas. The instinct of design must be relied upon chiefly to discover the most promising roads to travel. However, in such a matter knowledge of conditions assists and gives precision to instinctive feeling.

It is a first principle of architectural expression that its form should articulate structure; should be externally in harmony with the real construction, expressing, not contradicting, it. Yet we know that this theory must be compromised with in all typically modern constructions. It cannot be adhered to nowadays with the literalness of the days of simple masonry and timber building.

In small structures of two or three stories, residences mostly, we are still fortunate in having a simple problem in this respect, but seldom in any other class of building. It is not only the skyscraper that is of skeleton construction, but churches, theatres, imposing hotels and apartment houses are, most of them, of the same type.

Modern conditions, then, compel some modifications of the simple law of the harmony of design. While architecture will achieve its happiest results through following the line of least resistance offered by construction, there should be the understanding that, though it may not contradict the construction in an irrational or unnecessary manner, it may supplant the actual by an illusion of such structural form as is in accord with and in completion of, in an architectural sense, the true but bald engineering fact. To explain by definite citation: The actual frame of a Gothic church or a fifteenth-century Florentine palace, to name random examples, is such that a work of art was possible through the agency of design that beautified while revealing the construction with entire frankness and no disguise. Such quality, however, is lacking from the skeleton method which dominates modern architecture. A twenty-five story building, with a steel frame of equidistant verticals and horizontal members, encased merely in the minimum of practical masonry and without pretense of any further constructive system than the naked truth, is a monstrosity and a public offense. And yet many buildings of this size and class in no way offend or oppress us by overbearing ugliness, and, at the same time, their usefulness is in no wise diminished, all because their façades have been given some composition and proportion of form that satisfy the needs of eye and imagination. Of course the accent given to certain stories or other divisions or features whereby a design is achieved is not a reflection of any corresponding variation in the real construction and little or none of relative plan values. Nor have the attached pilasters, arches and other such matters any meaning above that of pure fiction; it is beyond doubt all make-believe. It is foolish, though, to condemn such a process of design, under the circumstances, provided the apparent construction as presented in the design is rational and consistent, its special accents always such as convey impressions of a construction that might logically be developed and similarly accented if the walls *were* solid, or at least had greater reality than that of a protective curtain. However, we accept this anomaly so we should find no fault with the illusion, merely as such, but only when it ceases to be an illusion of things real, of consistent meaning and of artistic value.

While it is particularly to masonry veneered steel construction that these questions of architectural virtue are pertinent, reinforced concrete design cannot consider itself free from the neces-

sity of compromise with them. The same commercial system is at work demanding a reduction of the constructive composition to the simplest form of skeleton consistent with the plan desired. The vogue of reinforced concrete has so far been mostly a commercial one, and has been influenced largely by the great bearing strength possessed by the system in light sections and long spans. As a consequence, the skeleton frame in concrete offers no greater body of material, and sometimes less, than the steel frame after the latter is encased in its fireproofing. The same hopelessly monotonous repetition of units is apt to be determined by forces quite beyond the control of the designer. Therefore there will be the same necessity of inventing some supplementary composition if buildings of this major class are to be done architecturally in concrete.

True, the concrete building retains, in any case, a closer bond between appearance and reality, because, while the older type is a construction of two distinct materials without a natural co-ordination of function, the other is of one substance within and without. Supports, floors, walls, roof, it is all one mass; the surface and the constructive material are the same. Therefore a curtain wall is not so disunited from its framework, and such fictional expression as it may be inclined to indulge in need not and should not be as radical a departure from fact as conditions make desirable in the stone or brick and terra cotta clothing of gaunt and rigid frames of steel.

We need not, however, in one construction more than the other, consider ourselves forced, because of any virtue in absolute adherence to truth, to express outwardly the actual equality of each vertical member and floor line; the rudimentary features and monotony in all its horror. Grouping of stories or bays and the use of all the conventional architectural paraphernalia we may find of service, if modified in accord with the new material; all this is legitimate, whatever our material or constructive system. It is the necessary sort of thing if we are still anxious to produce architecture from the unpromising data of column and girder framework. Therefore, we do not think it is reasonable to expect that we should abolish at one stroke all accepted conventions of form. Where, to retain them, would take us beyond the proper scope of our plastic medium let us fall back on the old materials, working out harmonious motives for their combination. This modified point of view will better sustain a properly ordered evolution which may eventually work out a closer harmony between construction and outward form. Architecture is full of small deceptions to cloak reality when this is crude and mechanical; though there should never be a line or bit of material without purpose and value in the expressive scheme of the design.

We should remember that the orders and other primary motives have, by their varied adaptability, become in a measure disassociated from their origins and from narrow restriction to those occasions where their actual and apparent functions are co-extensive. Architecture has for a long time used them largely as convenient symbols or notes of indication. The purist may say the indication is one only of decadence; not necessarily so when we consider that our problems lie in the conditions of to-day, not of yesterday.

The characteristics of concrete make certain clear demands, which we attempted to define above, and it is clearly requisite that features of stone or timber be not imitated unless such quality as belongs distinctly to either of these materials and to them alone be extracted; or unless we compromise the matter and veneer a concrete shell with jointed masonry. Otherwise such proportions and profile must be used as will not give the impression of an inappropriate copy of forms that could be rationally constructed only of built-up and jointed pieces.

But we cannot get along entirely without columns and entablatures, attached orders and other familiar devices, if we are to give some architectural dignity to skeleton framed buildings of great area or height, whether the frame be a reinforced concrete monolith or of riveted steel sections. Therefore, we think that

we need not have false pride, but that, for an invasion of the domain of masonry design, we should use the smoother methods of finish that closely resemble the texture of dressed stone and in the form of design phrases invented for stone, provided they may be rendered practically in the material and if not, introducing stone, terra cotta, or metal with the evident purpose of meeting the requirements of decided and formal composition. As was pointed out above, the impracticability of elaborate form work forces simplicity of surface projections upon concrete, and, therefore, adds the weight of practical considerations to other arguments in favor of the motives of incrustation and the use of architectural accents in other materials.

Such a course is better than a forced straining after originality. We should be satisfied if unnecessary imitation is avoided and if a little spontaneous thought and greater consistency of detail be suggested here and there. We should attempt then to so dissect and recompose old formulae as to infuse some of the plasticity and monocast feeling of the material. There are opportunities enough for the genius of design to assert

DETAIL OF THE MONOLITH BUILDING.
West 34th Street, New York.
(By courtesy of Architects' and Builders' Magazine.)

itself in a gradual transmutation of style without having recourse abruptly to an absolute divorce from tradition. It is necessary though to divest ourselves of the conception of derived motives as complete and unchangeable. On the contrary, we should view them elementally so as to discern whatever is in them belonging to art at large and free from the necessary implications of any one material.

In some problems of monolithic building, it is quite obvious and we may say has already been demonstrated, that construction may be sufficiently and truthfully stated and the material frankly expressed, while quite in harmony with present appreciations of form. A few small houses of decided beauty and entire consistency as to the expression of the material have already been designed and more in greater variety of motive will surely follow. The structural make-up, however, is of the simplest. Low walls, a good roof, projecting wings and porches or recessed loggias provide material for a sufficient composition and study of proportion; for the rest, textural surface and a small amount of appropriate ornament is all that is wanted. The walls will usually be plain, but piers of slight projection giving an arrangement of panels may occasionally be warranted. The reinforcing motive is scarcely developed in exterior expression except in that the walls are thinner than concrete walls could be otherwise; but, as reveals may be the same as usual, there is no departure from the familiar on this account. The floors may be of one construction or another without need for a reflection in the design. The differentiation from frame, brick and stone is mainly in surface form and is achieved by falling back upon a severe though appropriate simplicity of design, practically eliminating all mouldings and, in place of elaboration of window framings, porches, balconies and other features with usual motives, making use of mosaic themes and by inlaying tile or other bits of color pattern. The surface treatment should be the brush and wash method exposing the aggregates and producing a pleasing and broken tone of color which may either be in warm earth shades or the cool grey of blended black and white stone chips.

Some charming results are possible on such lines while expressive in a direct manner of the properties of the material and radically independent of tradition and convention, though the character of certain styles is almost unavoidably reflected to some degree. There is a praiseworthy simplicity and directness about such work that is refreshing after the garish artificiality so often met with and is something much needed for the healthfulness of present architecture. The plastic opportunities of concrete mean, too, the regaining of some of the lost feeling of handicraft. The material possesses an essential instinct for the hand-made in distinction to the machine-finished. It is naturally more readily in domestic than in commercial or monumental work that this feeling may find a ready outlet, and the former alone is certainly a large field. To what extent concrete will invade the latter class of buildings is as yet problematical. However, in the writer's belief, the future will witness a successful effort at enlarging the apparent limits of concrete expression to include such problems which an economically strong position promises to place squarely before the architecture of the future.

When we turn from a rural setting to city streets, from the simplicity and refinement, which it is, there above all, desirable to express, to the formality, the pretentious size and multiplicity of units, characteristic of commercial or semi-commercial building, we are face to face with quite a different design problem. Reduction of composition to the simplest terms means too barren a treatment for the scale, the repetitions and lack of relief involved. Surface treatment alone, however pleasing, will not entirely answer. The tile-mosaic motive should not be used indiscriminately but with the discernment we would show for something rare and delicate, just as we would not care for flower gardens that covered the whole landscape. Wrought metal accessories and enriched fenestration will be help-

ful. Still, what is required in the class of composition we refer to, is form and organic proportion. For such necessities we shall certainly have to be dependent, for a while at any rate, upon classic form, that is to say, upon the externals of the already developed architectural styles.

Very few designs have as yet been made, for buildings of extensive size, that announce with any positiveness the nature of concrete, particularly as expressed in reinforced construction. Most of the office buildings erected in the new method have been faced with brick and stone. The few that have ventured to depend solely upon concrete have kept pretty close to the precedents of masonry, not attempting a more direct expression of the individuality of concrete than to avoid an excessive pronouncement of stone. The Gloeker building in Pittsburg may be instanced. The Monolith building in New York shows, however, a well studied effort to design detail more conformable to the nature of concrete.

A bold attempt to emphasize reinforced concrete characteristics was made in the Marlborough-Blenheim at Atlantic City. Though the result may be in some respects bizarre, it is also successful in presenting a forceful essay in logical design. The Ponce de Leon Hotel at St. Augustine, built many years ago, is a beautiful rendering of one aspect of concrete—heavy walled construction with brick, terra cotta and timber as accessories for the featuring of the design, concrete being a sort of background material.

Even in the most individualistic work, the past has been drawn upon freely for minor motives at least. It has been usual to seek precedent in styles that delighted in color incrustation and excelled in tile work, mosaic and stucco—Persia, Arabia, Byzantium, and, we may add, Venice, Yet Venice we can but feel is too fragile a flower for the climate of this unpoetic age; and the others are not great architectures. We have also turned quite naturally to such other styles as were distinctly monolithic and plastic in expression: to Egypt and the Spanish Missions of California. And just as these two are as opposite poles in feeling, so are they both too foreign to our present mode of thought and environment, for it is to be artistic wisdom to reproduce them unless in their own climatic surroundings. We may look to them for hints and extract ideas that we can use, if we are clever enough, but literal reproduction is as ill advised as is the imitation of other materials.

The foundations of useful inspiration, then, belong to eras that are gone and with which we are not now particularly in sympathy. While the same is true to an extent of every style of the past, yet our present ideas, our mode of life and mould of thought find easy and fairly natural expression through adaptions from the various offshoots of the Renaissance.

The manifestation of *l'art nouveau,* while having more force in the allied plastic arts than in architecture, yet has essayed expression in the latter. Quite independently of reinforced concrete suggestion it has created forms highly imbued with the feeling of this material, though in the judgment of the sober minded, falling usually into inconsequent excesses or trivialities. It would be interesting to seek out in what respects this emancipated style may be expected to contribute to creative design in concrete.

The problem of the future as to concrete—and in the latent originality of this material is the chief hope of future style—is to develop the suggestions we may glean from the barbaric styles of color and incrustation along new lines and at the same time to create, consistently with structure and material, motives of form and line, both in concrete itself and in combinations with other materials, that will save to us the classic sense of rhythm; our inherited desire for architecture that is dignified and graceful—formal where required, beautiful in any case.

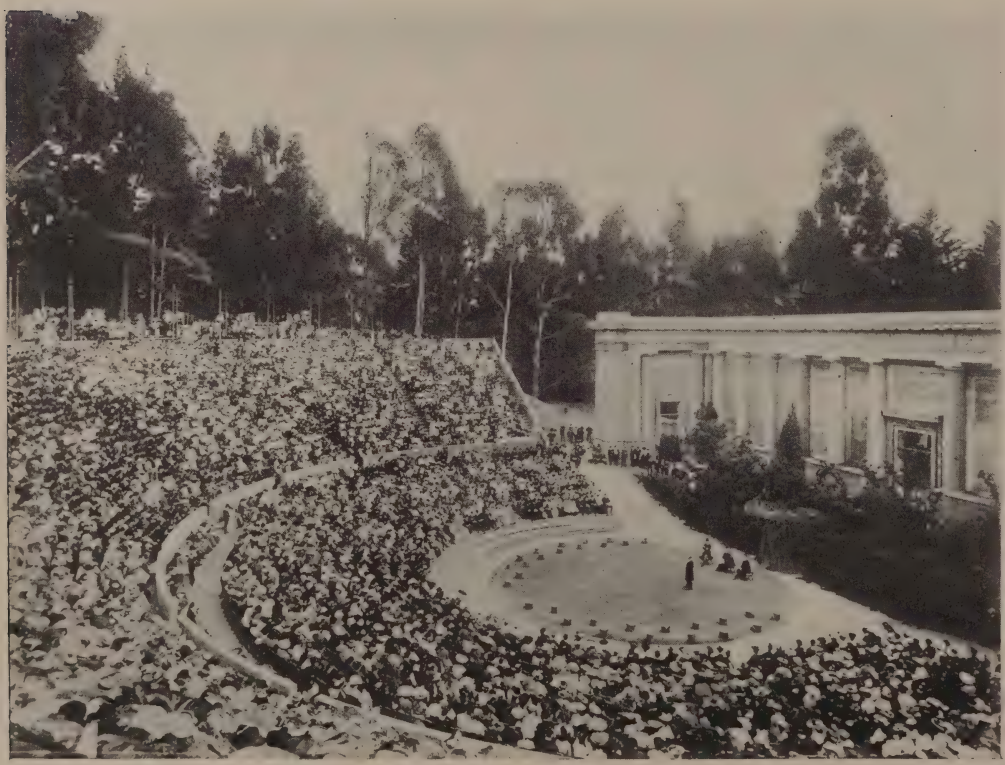
H. Toler Booraem.

The New University of California

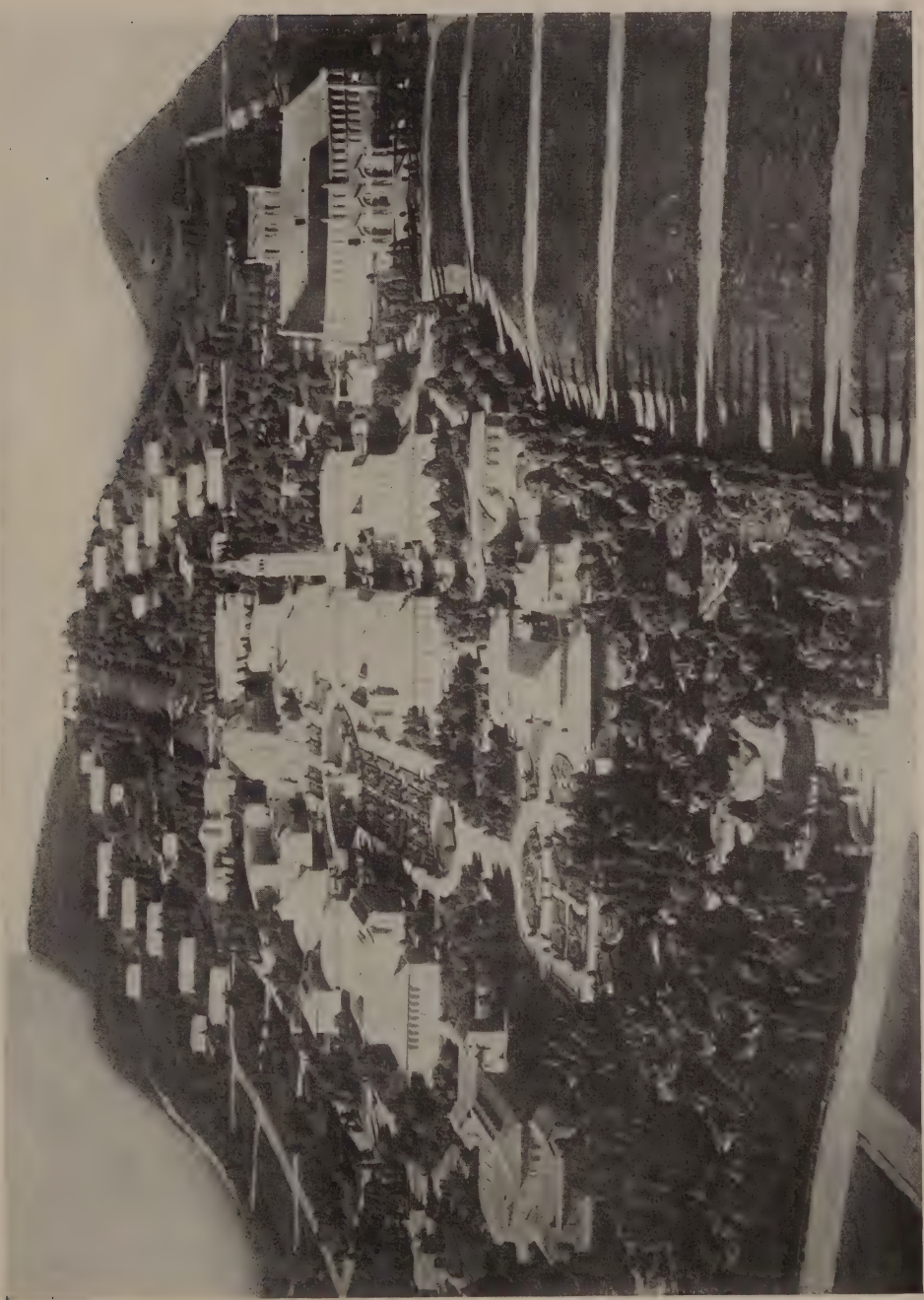
I.

Among the American universities there is none which is growing much more rapidly than is the University of California, and there is none whose growth is more significant and promising. This institution is the State university of California; but it has characteristics which distinguish it sharply from the other State universities. Just as the State of California claims to be, and with justice, an imperial State, just as the city of San Francisco claims to have, and with justice, certain traits of a metropolitan city, so the University of California, situated across the bay from the city of San Francisco, is destined to be something more than a provincial college. No one who has considered candidly the differences in social, moral and intellectual outlook between the Californian and the inhabitant either of the Middle West or of the Eastern States, can doubt that California will develop in the course of time a society and a civilization differing in certain essential respects from that of the rest of the country; and it is extremely probable that the most characteristic expression of California's peculiar phase of Americanism will be found in the intellectual sphere. This prophecy can hardly be justified by any actual achievement; but it exists in the minds of the enlightened Californians as a living aspiration. They believe in the future of their State in the way that is quite impossible for the Nebraskan or the New Yorker; and they are justified in this belief, because the boundaries of California are not arbitrary, because its traditions are unique, and because, with its mountains and its coast, its mineral and its agricultural wealth, its industrial and its commercial possibilities, and its peculiar advantages as a place in which to live, its statehood is something more than a legal expression. So the Californian is constantly preparing and working for a future which shall justify the imperial promise of his State; and among the institutions which are being wrought pre-eminently under the influence of this larger outlook, the University of California must be counted as not the least important.

When a State assumes the responsibility for the income and the welfare of a university, the consequence usually is that the institution so supported is obliged to get along without private benefactions. The liberal millionaire generally bestows his gifts upon institutions which cannot subsist or increase without an endowment, and which become, consequently, at once an evidence and a memorial of individual generosity. Such, however, has not been the case with the University of California. It owes much to the State, but it also owes much to the benefactions of well-to-do Californians; and for this reason it becomes peculiarly representative. It is neither merely an official institution; and its efficiency and standing are not impaired by the perfunctory service which State institutions often command, and the meager rations on which they are obliged to subsist. Neither is it an institution which is less representative, because it is too much the issue of the generous aspirations of one man. It combines the authority which is derived from its official allegiance to the State, with the freedom and flexibility which are contributed by its affiliation with Californians of wealth and intelligence. It has the advantage of a strong and opulent competitor in the Leland Stanford, Jr., University; but it is not handicapped in this competition by the want of friends as liberal, if not as plethoric, as the Stanford family. It subsists, so far as American universities go, upon a unique combination of private and public support. The smallest taxpayer may be interested in it, because it is partly maintained by State appropriations, while at the same time many wealthy benefactors have already scratched their names on its memorial



THE GREEK AMPHITHEATRE AT THE UNIVERSITY OF CALIFORNIA.
Berkeley, Cal. John Galen Howard, Architect.



REVISED GROUP PLAN OF THE NEW BUILDINGS OF THE UNIVERSITY OF CALIFORNIA.
Berkeley, Cal. John Galen Howard, Architect.

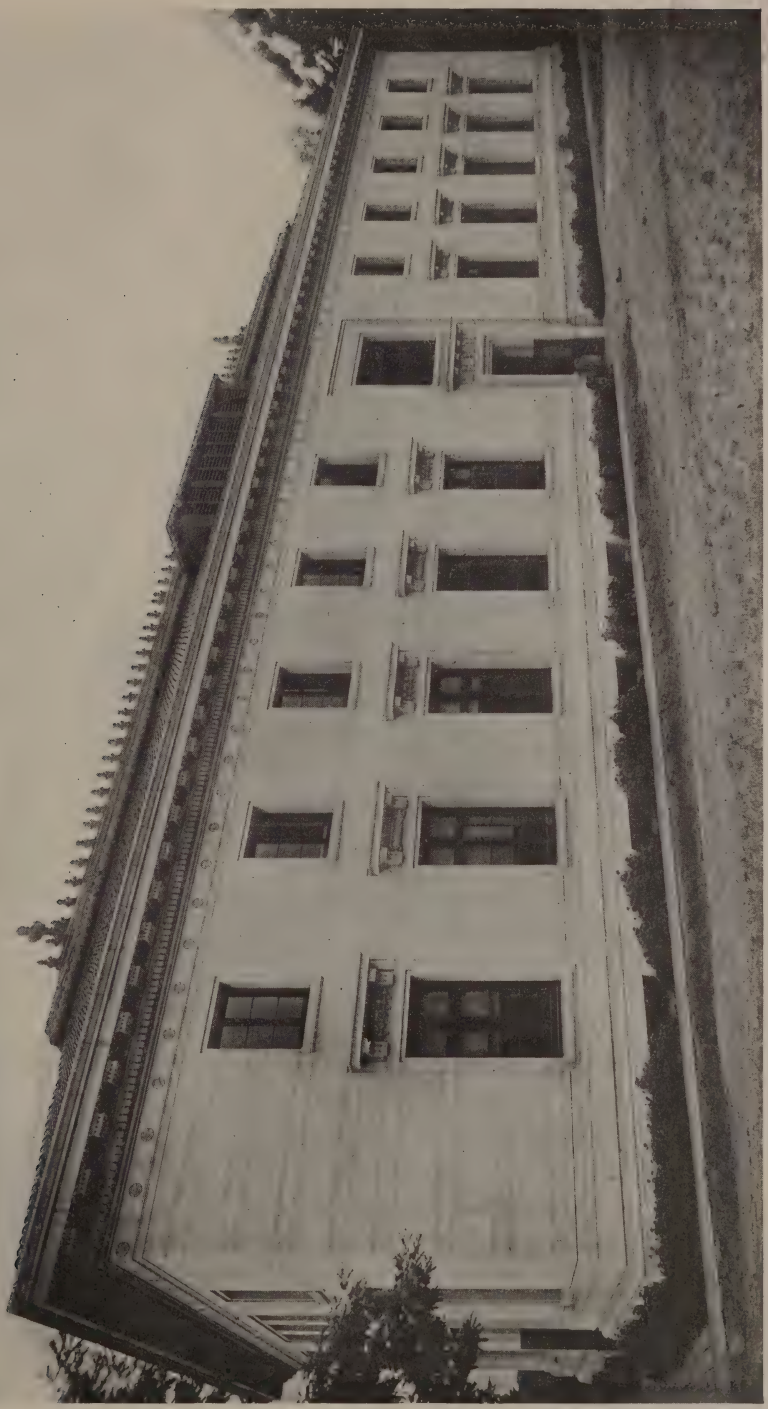
tablets. If this happy mixture of official and unofficial backing can be continued indefinitely, it should in the end give the university a standing as unique as is the source of its income and property. Doubtless the divided nature of its support also has its rougher aspect and its less agreeable consequences. Doubtless it brings in its train some of the disadvantages as well as some of the advantages of both the official and the unofficial universities. But whatever these disadvantages, they are not too high a price to pay for the enlarged opportunities and promise which the university obtains from the peculiarly representative nature of its support.

The new architectural plan of the University of California can hardly be understood except in reference to the foregoing considerations. This plan has been prepared under the influence of the conditions and the ideas which I have been attempting vaguely to describe. Its builders and designers have, from the beginning been imbued with the idea that they were planning a university which was to be the most important single intellectual influence in the lives of an ever-increasing number of Californians. They wanted the university, in its architectural expression, to be worthy of its great future; and in this aspiration they were sustained not only by the State authorities, but by many individual Californians, of whom the most conspicuous was Mrs. George Hearst. In thus building for the future the directors of the university had at once the advantage and the disadvantage of being without any architectural monuments which were worth preserving. The existing buildings, whether because of individual merit or because they pointed towards an admirable tradition, did not deserve perpetuation. The university could build for the future, unhandicapped by the past.

There are many people who will believe that the absence of an honorable architectural tradition was more of a disadvantage than an advantage, particularly in the case of an institution like a university which lives so much upon tradition. To such an institution the past should be a guide rather than a handicap. But this comment, whatever its general truth, is in the present instance beside the mark. The directors of the university were, as I have said, anticipating and preparing for a future of a scope and a significance out of all keeping with its modest achievements; and under such conditions their freedom from any specific architectural allegiance was on the whole a palpable advantage. They could found a local tradition more appropriate than that of collegiate Gothic or Colonial; and they could embody this tradition in a plan which would be all the more adequate, because it was not necessary to preserve existing buildings on their sites, or to consider specific styles. The adequacy, the integrity and the propriety of this plan would, if it were well conceived, be proportionate to the extent from which its designers were emancipated from conditions which were, after all, irrelevant, in view of the much more magnificent promise of the university's future. No doubt an Eastern university, such as Harvard or Princeton, may anticipate a future of much greater amplitude than its past, while at the same time seeking to preserve all that was valuable in its local tradition. But Californians are united, much more than are the inhabitants of any Eastern State, by the future they are building; and the really formative influence in that future is not a tradition so much as an adequate and fruitful idea.

II.

It was under the influence of considerations of this kind that the plan for the greater University of California was wrought. In 1901 the first steps were taken towards the architectural foundation of the new university. The idea was that such a university must receive an architectural embodiment which would really symbolize the larger aspirations of its friends and its own increasing intellectual authority; and under the influence of this idea there was instituted, with the assistance of Mrs. George Hearst, an international competition. The object of this competition was not so much to secure the designs



CALIFORNIA HALL, VIEW OF LONG SIDE FROM THE SOUTHEAST—UNIVERSITY OF CALIFORNIA.
Berkeley, Cal. John Galen Howard, Architect.

of a series of individual buildings, the money for which had already been provided. What the overseers of the university wanted was a general plan which would take advantage of the superb site at Berkeley, and which would provide an appropriate place for every important building that during the next several generations the university was likely to need. All these buildings were to be subordinated in their location and their design to one comprehensive architectural scheme, which was to be prepared after full consideration of every relevant aesthetic and practical consideration.

It will be remembered that the competition was won by a Frenchman, M. Emile Bénard, a very brilliant architectural designer; and the plans which secured for him the award were not the least brilliant of his achievements. They were, however, very much more in the nature of preliminary sketches than finished drawings. They had been prepared without the benefit of a visit to Berkeley, and, besides, they were drawn on the very small scale of fifty feet to the inch. At a later date M. Bénard paid a visit to Berkeley and drew up a revised scheme, in which were embodied many important modifications of his original drawings and some decided improvements; and it is this scheme which has formed the basis of the plan according to which the greater university is now being constructed.

A preliminary plan, however, is one thing, and its actual execution, under conditions imposed by time, money and a complex set of practical conditions, quite another. It was neither possible nor desirable that M. Bénard should remain at Berkeley to undertake or even to start the more difficult work of carrying out his own plans; and in his place the university was fortunate enough to secure the services of one of the few American architects to whom such a task could be safely entrusted — Mr. John Galen Howard. The position required something more than architectural training, experience and ability, because it was something more than an architectural idea which its incumbent was required to feel and to realize. The architect of the new University of California had to be able, not merely to design a group of buildings, but to participate in the task of converting a small university of limited resources and purposes, into one of the greatest and most adequate educational institutions in the United States. It was in part an intellectually and socially constructive task to which he was called; and the fulfilment of such a task requires, it scarcely need be said, an unusual combination of such qualities as tenacity, courage, patience, flexibility and intelligence. Mr. Howard has proved his ability to devote himself with disinterested enthusiasm to the fulfilment of an idea. Little by little he abandoned a lucrative practice and an enviable position in New York in order properly to perform his work in California; and he ended by establishing his residence in Berkeley, where he undertook not only to plan and design the new buildings, but to organizie an architectural department in the university. He has become the representative in the counsels of the university of the plastic arts in their relation to the higher education, and he has consistently proclaimed the importance of aesthetic training as an element in the consummate educational process. All these additional tasks are a natural development of the fundamental work to which he was called, of designing in detail the buildings of the new university, for the great architectural plan could never be loyally and intelligently realized without a gradual increase of architectural interest and understanding on the part of the alumni, the friends and the overseers of the university.

It is, however, Mr. Howard's primary work with which we are here chiefly concerned; and that work in itself was a sufficient test of Mr. Howard's abilities and his patient and loyal devotion to his task. M. Bénard's plan remained, even after the modifications, a sketch; and the gradual fitting of a preliminary sketch to a complex set of practical conditions, without any impairment of the original architectural idea is, as every architect knows, the most trying part of

CALIFORNIA HALL, DETAIL FROM THE SOUTHEAST—UNIVERSITY OF CALIFORNIA.
John Galen Howard, Architect.

Berkeley, Cal.

CALIFORNIA HALL—LOBBY OF THE EXECUTIVE OFFICES.

CALIFORNIA HALL, TOWER HALL AND STAIRWAYS—UNIVERSITY OF CALIFORNIA.
Berkeley, Cal. John Galen Howard, Architect.

the work. As a matter of fact, it was soon found that M. Bénard's plan had to be followed more in the spirit than in the letter. The salient characteristics of

CALIFORNIA HALL, MAIN ENTRANCE—UNIVERSITY OF CALIFORNIA.
Berkeley, Cal. John Galen Howard, Architect.

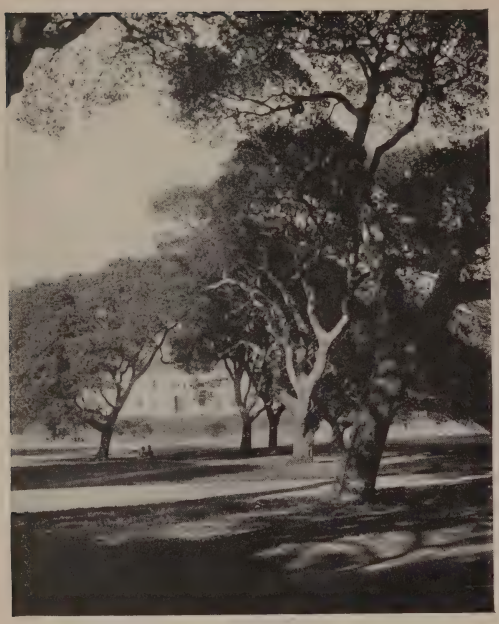
his scheme have been described in the following terms: It is "composed upon a main avenue or esplanade, running nearly east and west across the grounds in the direction of their greatest length, and forming a central line of cleavage from one end of the grounds to the other. Two hardly less important axes, running north and south, cross the main esplanade at a considerable distance apart. The more westerly of these lines determines the centre of a great court, which has received variously the names, Fines Arts Square, Library Square and

the like, according, as in one sketch or another, the museum or the library filled the place of honor and gave the court its special character. The more easterly axis opens up a long vista towards the south, which is terminated by the athlethic field and the gymnasium, quite at the southern boundary of the grounds. The various academic buildings are grouped upon these threes axes, in accordance with well-recognized principles of formal architectural composition, yet in such a manner as to give great variety of aspect. The buildings are of various sizes, of different scale, of diversified outline, while the tendency of the architectural treatment is nevertheless consistent in its generally classic character."

Such was the general composition which Mr. Howard was asked to execute when he assumed charge of the immediate architectural future of the university, and the salient features of this scheme he has found no reason to modify. The plan, in accordance with which the new buildings of the university are now being erected, includes an esplanade, running in a general direction from the west to the east, and two cross axes running, of course, in the opposite direction. This plan has, nevertheless, been profoundly changed, if not in its outlines, at least in its application to the grounds. The Bénard scheme demanded a drastic and extremely expensive remodeling of the site of the university. The main axis, for instance, crossed a broad, shallow amphitheatre of hills, beyond the crown of which the land falls away sharply and irregularly. In order to get the esplanade safely across these hills, an immense amount of filling, grading and cutting would have to be undertaken, and certain of the natural beauties of the site destroyed. In M. Bénard's plan these difficulties were met by a bold device, which is described by Mr. Howard in the following words: "The crown of the hill was in that design lowered by an average depth of twelve feet, and the succeeding declivity was crossed by a broad causeway or bridge, lifted above the adjoining levels to a height of seventeen feet. The grade line of the bridge was maintained throughout the entire length of the botanical garden, which was shown as filled to an average depth of ten feet. By these means virtually a single magnificent slope at a very easy inclination, held from the entrance at Oxford street to the end of the esplanade."

The architectural effect which would have been obtained by means of the Bénard plan might well have been magnificent, but its expense was prohibitive and its drawbacks serious. Mr. Howard has sought to preserve the advantages of the plan, while at the same time avoiding its difficulties, by running the main esplanade along a somewhat different line. This line does not depart from the same general direction, but it has the great merit of preserving the entire middle portion of the grounds at approximately their present grade. It requires a much smaller amount of filling and grading than does the line proposed by M. Bénard because it corresponds with the natural central line of drainage, and its establishment has revealed the possibility of retaining many minor beauties of the site from the beginning to the end. It will be useless to trace this line in detail from one end of the grounds to the other, because it would require either a visit to the site of the university or a detailed topographical map in order to appreciate its advantages; but an examination of the illustration of the model which accompanies this article will disclose how naturally and snugly the plan has been fitted to the configuration of the ground. That site naturally divides itself into four parts. Of these the central portion is by far the largest and most important, lending itself readily, as it does, to the construction of a number of monumental buildings, properly grouped along a salient line. The land to the west forms a natural approach to that group, separating slightly from the town and giving it the seclusion which is appropriate to a university surrounded by a modern American suburb. The hills to the east afford a majestic natural emphasis to the climax of the composition. Finally, to the south, just aside from the path of learning, yet closely

HEARST MEMORIAL MINING BUILDING—FROM THE SOUTHWEST—UNIVERSITY OF CALIFORNIA.
Berkeley, Cal. John Galen Howard, Architect.



SOME OF THE SPLENDID TREES ON THE UNIVERSITY GROUNDS.

joined thereto and playing its own part in relation to the essential task of the university, lie the fields to be devoted to athletics. In short, the plan, in its relation to the grounds, is summed up by Mr. Howard in the following terms, borrowed from domestic architecture: "The house, consisting of the most important academic building, has its forecourts and garden to the west, its secluded retreat to the east and its play-ground to the south."

III.

Another respect in which Mr. Howard has been obliged to modify the Bénard plan radically is in the location of the various buildings. The sites selected for the buildings should obviously be determined rather by considerations of convenience than by strictly architectural reasons. It makes no difference to the effectiveness of an architectural scheme, in case a building situated in a particular spot is called a library rather than a museum, provided it adequately occupies its site. The library, consequently, has been shifted from its position in the Bénard plan to a more central location, midway between the two cross axes, where it will have an exceedingly fine architectural effect, and where abundant room will be provided for subsequent growth. The humanities group of buildings, including belles-lettres, languages, history, jurisprudence and the like, would be arranged immediately about the library. On the opposite side of the main esplanade, thus serving as the architectural balance of the library, is the museum; and if the museum is devoted to natural history and ethnology, as well as to art, the buildings occupied by those branches would be grouped around the museum as a centre. Inasmuch, however, as these and other buildings, the library excepted, only exist in the realm of project, their location cannot be absolutely determined by Mr. Howard's plan any more than by that of M. Bénard's. Certain logical and convenient arrangements can be suggested; but the final decision can only be made when the means are available for construction. So far, the only buildings actually erected are California Hall, which serves as an administration building and as a group of lecture rooms; and the Mining Building, funds for the erection of which were provided by Mrs.

HEARST MEMORIAL BUILDING—AN INTERIOR COURT.
University of California.

George Hearst. These two buildings, while of the utmost practical value in the work of the university, do not occupy important places in the architectural scheme. The Greek Theatre has also been partly completed, owing to the liberality of Mr. William R. Hearst; but the Greek Theatre occupies a secluded site back of the main group of buildings, so that its construction does not help the imagination towards a projected realization of the whole scheme. The library will probably be the first building of salient architectural importance to be built, and as soon as it and its companion, the museum, are completed, the plan will take visible shape and its architectural and practical advantages more fully realized. In its present form this plan has cost its creator an amount of detailed architectural study, of patient and exhaustive investigation into practical conditions, and of imaginative architectural invention and anticipation which is almost unique in American architectural practice.

The buildings already completed, few as they are, have, however, set the note and established the style. This note and style must be maintained unless the entire plan is to be thrown away and a new beginning made; and as nothing of the kind will happen during the present generation, it may be assumed that the style will become too well established thereafter to be disturbed. That a certain style, related fundamentally to the classic tradition in architecture, has been adopted for the buildings of the University of California is a matter of prime architectural interest, not only for the architectural future of California, but for the future of collegiate architecture in all the Pacific States. No doubt the adoption of such a style was practically implied when a French architect was awarded the prize in the original competition. No doubt it was in a sense implied when the decision was reached to submit the future building of the university to the restrictions of a single plan, because such a plan necessarily brings with it the formal arrangement of a group of monumental classic buildings. The extreme importance of such a decision none the less remains a matter for explanation and discussion, while at the same time the complexion of the whole question is gravely modified by the peculiar character which Mr. Howard has bestowed upon such examples of the style as have already been erected. The bearings of this question demand some consideration preliminary to an account of the buildings already erected.

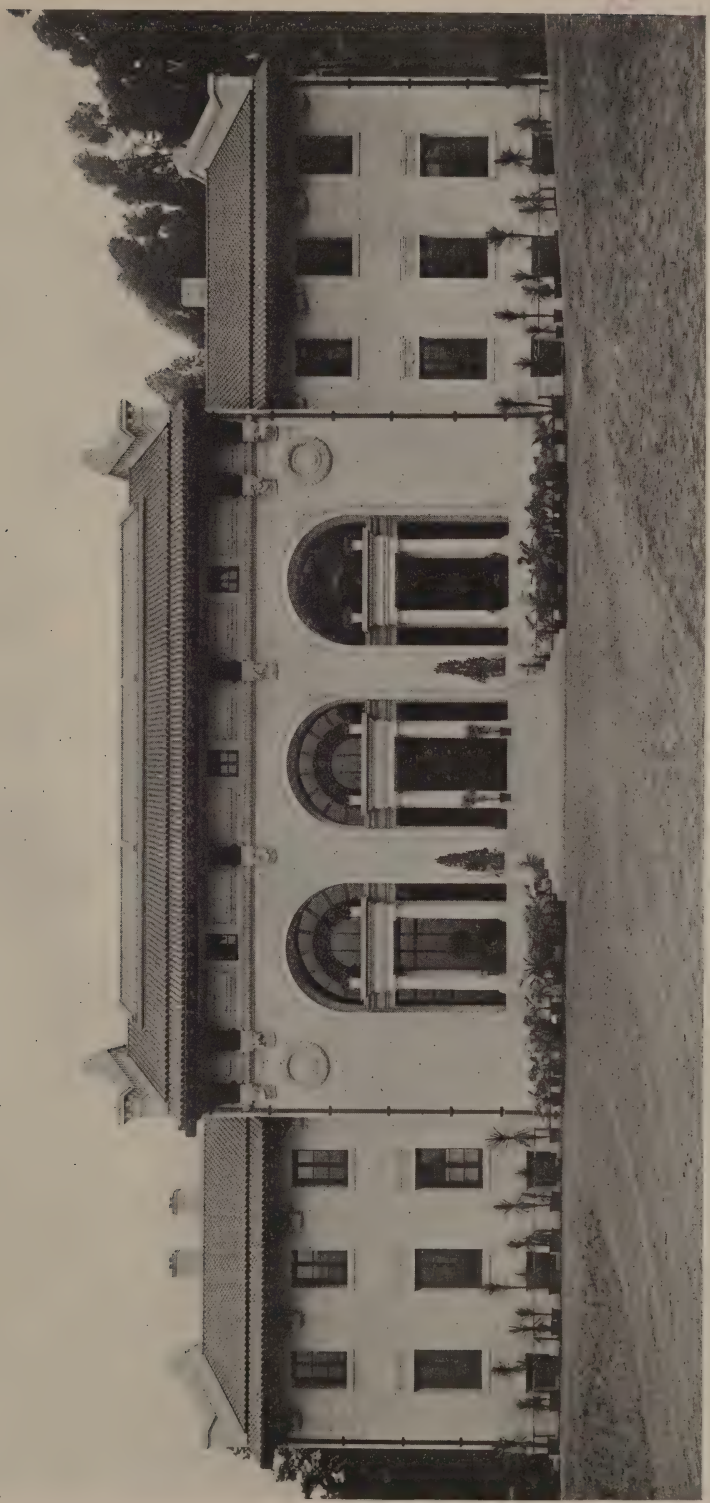
It has been stated that under the Bénard plan the buildings were to be "of various sizes, of different scale, of diversified outline, while the tendency of the architectural treatment remains, nevertheless, consistent in its generally classic character"; and this description remains as true of the plan after Mr. Howard's modifications as before. The most significant matter for controversy is suggested by the description of the buildings as consistent in their generally classic character. A certain phase of opinion in California has been inclined to question the advisability of erecting a group of buildings, consistently classic in design, to provide a habitation and an architectural symbol for the most representative Californian institution of learning. Californians, as I have already remarked, are justifiably proud of their State, and are very much attached to its peculiar local characteristics. The patriotic conscience of a New Yorker may be satisfied in case he can discover in a building or in a painting some slight infusion of an American condition or point of view. He looks forward to the foundation, not of a local metropolitan architectural tradition, but one which shall have certain national characteristics. But the Californian is not satisfied with such anticipations of a national art or literature. To satisfy their existing demands, local art, architecture and literature must rather be Californian than national; and this demand has already had a considerable effect upon architecture in California. They want buildings adapted to the Californian landscape, appropriate to the peculiar character of Californian trees and foliage, and somehow expressive of Californian ways of living and point of view. How can such a demand as this be reconciled with the

erection by their most representative State university of a group of buildings consistently classic in character?

The attempts which have been made by Californian architects to satisfy the demand for local architectural forms have looked in two directions. The more successful of these two experiments consists of a type of picturesque shingled suburban and country house, which is a peculiar and legitimate result of Californian ways of living and of Californian building methods and materials. Obviously, however, such buildings as these are of no use to an architect who is designing a group of monumental collegiate buildings. The other essay in the direction of a Californian architectural style has consisted in the imitation of the old Mission buildings; and this experiment has been responsible for a truly appalling number of flimsy and fantastic plaster copies of the sober conventual buildings of the early Franciscan friars. It is, however, hardly fair to measure the permanent value of the Mission style as an appropriate element in Californian architecture by the frivolous and exasperating popular version thereof; and as a matter of fact, it is not necessary to do so. Stanford University offers an example of the application of the Mission style to a group of collegiate buildings; and this attempt to give a local character to the buildings of a great Californian university was projected at least by one of the greatest of American architects. A better example could not be desired of the possibilities for this purpose of the forms used in the early conventual and ecclesiastical buildings; and after an inspection of the issue of this experiment, we do not believe there can be any doubt as to the verdict. Both from the æsthetic and the practical point of view, the Mission style is very badly adapted to the requirements of a modern American university, be it situated in California or on Morningside Heights.

This verdict is founded on a sufficiently obvious group of considerations. The old Missions were, of course, used for conventual and ecclesiastical purposes; and the attempt to adapt a conventual and ecclesiastical style to the needs of modern museums, libraries, laboratories and lecture rooms must necessarily be a forced attempt. It must end either in the mutilation of the style or in the sacrifice of certain essential practical requirements. The plan of a library, museum or a lecture room can with difficulty be adapted to the forms of Mission architecture. All of them demand an amount of light and a distribution of the floor space which results naturally in a different sort of design; and as a matter of fact, we understand that certain of the buildings erected for these purposes at Palo Alto are very inconvenient places in which to work. Nor is this all. Another series of difficulties have to be faced in case any attempt is made to plan a number of Mission buildings in such a relation, one to another, as will make either for convenience or for unity of architectural effect. The Mission style, like other conventual and ecclesiastical styles, lends itself admirably to the grouping of a few buildings around a court or enclosure; and if a modern American university were made up of a collection of colleges, every one of which preserved its pedagogical and architectural autonomy, each of these colleges could be planned and designed along the lines of one of the old Missions. But an American university is a very different thing. It consists of one big college, divided for convenience into a number of different departments. The buildings in which the work of these several departments is performed should, as far as possible, be grouped according to one comprehensive and coherent plan. Such a plan would demand not merely many buildings, but buildings of many different sizes, exposures, aspects and heights; and the attempt to adapt the Mission style to the exigencies of such a plan would tax the greatest architect beyond his power.

The fact is, of course, that the rude but charming archaism of the old Missions is wholly out of keeping with the needs of modern American building; and the idea of using them as the point of departure for contemporary Californian architecture is merely an evidence



HEARST MEMORIAL MINING BUILDING, SOUTH FRONT—UNIVERSITY OF CALIFORNIA.
John Galen Howard, Architect.

Berkeley, Cal.

of architectural immaturity. Californians are, as I have said, tied one to another by the future they are in the act of building. Their attachment to the Missions, and to the life and intellectual outlook therein embodied, is not historical; it is wholly sentimental and literary. The one way to impart a local characteristic to their architecture is to make it embody local and contemporary needs and conditions. To be sure, it may embody local and contemporary needs and conditions without any defiance of the past, and with apparent regard for the future; but in any event the claims of the present are paramount. The traditions of the past, from which assistance is asked, must be appropriate; and the future, which is to be built, must be the natural outgrowth of existing needs and ideals.

The official architectural plans of the University of California are characterized at once by fidelity to an appropriate architectural tradition, by a confident and aspiring outlook towards a larger but not too remote future, and, above all, by a paramount solicitude for the actual needs of the university. When the competition was originally held, and when the Bénard plan was adopted, it was, of course, entirely possible that the plans might have miscarried. Through the attempt to realize too much of its magnificent prospects at the present time, the university might have tied itself to a grandiose and rigid architectural scheme, upon which much money would have been spent for years, only, perhaps, to be wasted in the end. But the men who have since been responsible for the architectural direction of the university have skilfully avoided the pitfalls into which they might have been betrayed by the adoption of a big architectural scheme. The plan has been modified in such a way that its gradual realization does not require an expensive re-formation of the university site or a rigid distribution of the university buildings. At the same time, while being made flexible, with regard to the future, it has also been emancipated from an embarrassing allegiance to a narrow or a rigid architectural tradition. The plan has been stripped of the merely French accessories, with which it was originally entangled. The great purpose has been to make every building which was erected the best possible expression of existing needs and conditions; and if these buildings embodied an architectural tradition or are arranged in reference to a greater architectural future, that is because the needs of the present cannot be satisfied except by means of such ties and anticipations.

The truth is, as has already been suggested, that the adoption of a consistently classical architectural tradition was necessitated when the Bénard plan was selected. A collection of monumental buildings cannot be effectively grouped around two spacious courts or along an esplanade unless they are designed in conformity with the classic architectural tradition; and the management of the university, when it made that selection, was well advised from every point of view. It was a decision which made both for practical efficiency and for the architectural education of the students and of the community; and it was a decision which promised the best aesthetic results. It can be completely justified as the outcome of a sound conception of the architectural future of California.

The classic architectural ideal and forms, so far from being inappropriate to a Californian university, are peculiarly well adapted to the Californian landscape and to the Californian intellectual and moral tradition. California is more closely allied to Latin civilization than is any other part of the American republic. It was settled by people of Spanish descent and while the tie which connects California with the missions and the friars is merely literary and sentimental, there exists a much more significant connection with the social tradition represented by the early Mexican inhabitants. The American conquerors actually inherited little from the people they dispossessed, but after a prolonged occupation of the Californian country, they have tended to exhibit some characteristics which are more Latin than they are Anglo-Saxon. Under the influence of the Californian open-air life and really temperate climate, they are gayer socially, more expansive and much more

willing to spend time in giving pleasure to themselves and to other people. All this is making for a livelier use of the intelligence and for a more genuine and fruitful interest in the arts, and it is this characteristic which allies them with the Latin peoples. It does not tie them specifically to the Mexicans or to the Spaniards, but it does tie them to the Latin tradition—to the tradition which makes for a socialized rather than merely an individualized art, and for an innocent and well-tempered love of beautiful things. In the course of time the Californians should be able to give a more genuine and a more idiomatic expression to the Latin or the classic tradition in art and architecture than will their fellow countrymen further east. The classic tradition in style is necessarily an artificial thing, except among a people who are socially expansive, and who without any sense of mutilation can subordinate themselves to acceptable conventions of social expression and communication.

It should be added, also, that the Californian landscape, in the settled neighborhoods, is peculiarly adapted to a classic type of building. The whole country lying between the Sierras and the sea, except that near the highest ridges of the coast range, is composed of extremely simple elements. It is not rough, broken, rocky and unkempt. On the contrary, it has comparatively few plains and levels, and those which do exist are usually gentle in ascent, while at the same time being firm and bold both in outline and modelling. A landscape of this kind demands a type of buildings which has been simplified in the classic spirit, and which reaches its effect by the economical but spirited use of the essential architectural means and elements. The typical Californian countryside, indeed, seems peculiarly adapted to the habitation of a highly civilized human sociiety. It can be converted to the uses of such a society not merely without any mutilation of its peculiar beauties, but with a positive enhancement thereof. It lends itself by its contours, its levels, its foliage and its climate to formal architectural treatment; and in this respect the site of the University of California at Berkeley is no exception to the general rule. It is, perhaps, more heavily wooded than is the typical Californian landscape; and it contains an unusual variety of natural incident; but it is peculiarly adapted to just the kind of development which the architectural plan of the university proposes. That plan, when it is carried out, will not impair those natural beauties, but will merely give them a more positive emphasis. The scale of the buildings is fitted to the scale of the countryside and of the trees. Their white walls and tiled roofs will look particularly well in the Californian sunshine and atmosphere. Their lay-out will take advantage of the actual shape of ground, and will lead naturally to the most interesting points of view. A pervading sense of beautiful natural surroundings will be retained, in spite of the fact that one may be walking through the squares and the streets of a veritable city of learning.

IV.

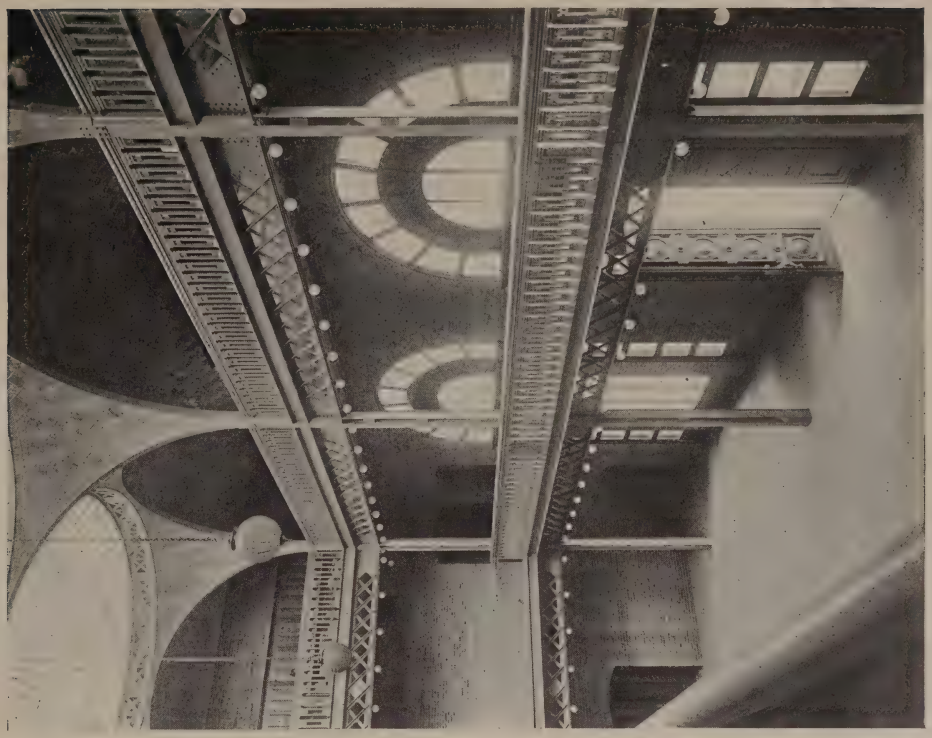
The writer, then, has no sympathy with those Californians who object on the score of propriety to the use for the university of a consistently classical group of buildings. Such a plan might, as I have admitted, gone astray, but if so, it would have gone astray only because it was misapplied. An intelligent and skillful use of the classical architectural tradition and forms was precisely what was needed, and the existing architectural direction of the university has made such a use of the tradition, which was accepted, and of the forms, which were adopted. The whole program and method of procedure have been dictated by sound reasoning and appropriate ideas. Neither is this a small merit. In planning the architectural future of a great university, everything depends upon the adoption of a well-considered policy, and one has only to turn over in one's mind the list of the American universities in order to realize what a small number of them have ever adopted a policy of this kind. A university cannot, like a public

building, be erected in a few years, and as the outcome of an over-rigid architectural idea. It must be allowed to grow, just as a human being must be allowed to grow, but it should be guided in its growth by proper and adequate formative influences; and that is what is being done in the case of the University of California.

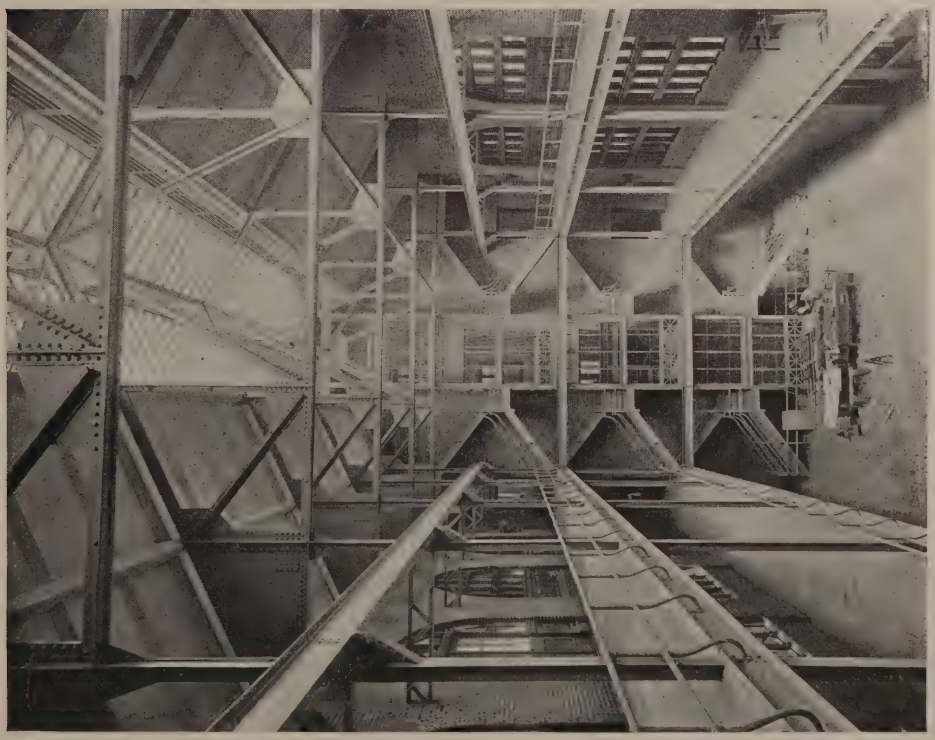
The buildings which Mr. Howard has already erected embody admirably the spirit of the plan. They are designed in the classic tradition, but that phrase has been interpreted in its broadest sense. The classic tradition has not been interpreted to mean either modern French or Colonial orders, or the Italian Renaissance. It has been taken to mean a very simple, economical and even realistic method of design. In fact Mr. Howard in his application of the classic traditions has reduced it to its essentials. He has freed it from any mannerism, and has made it equivalent to a completely formed, strongly simplified design, expressive at once of vitality and repose. Ornament of all kinds has been used not merely with discretion, but almost with parsimony, yet the effect is not austere because the essentials of the designs have been so well handled. In both California Hall and the Mining Building one is immediately impressed by the great dignity of their treatment,

HEARST MEMORIAL MINING BUILDING, DETAIL OF SOUTH FRONT—UNIVERSITY OF CALIFORNIA.

Berkeley, Cal. John Galen Howard, Architect.



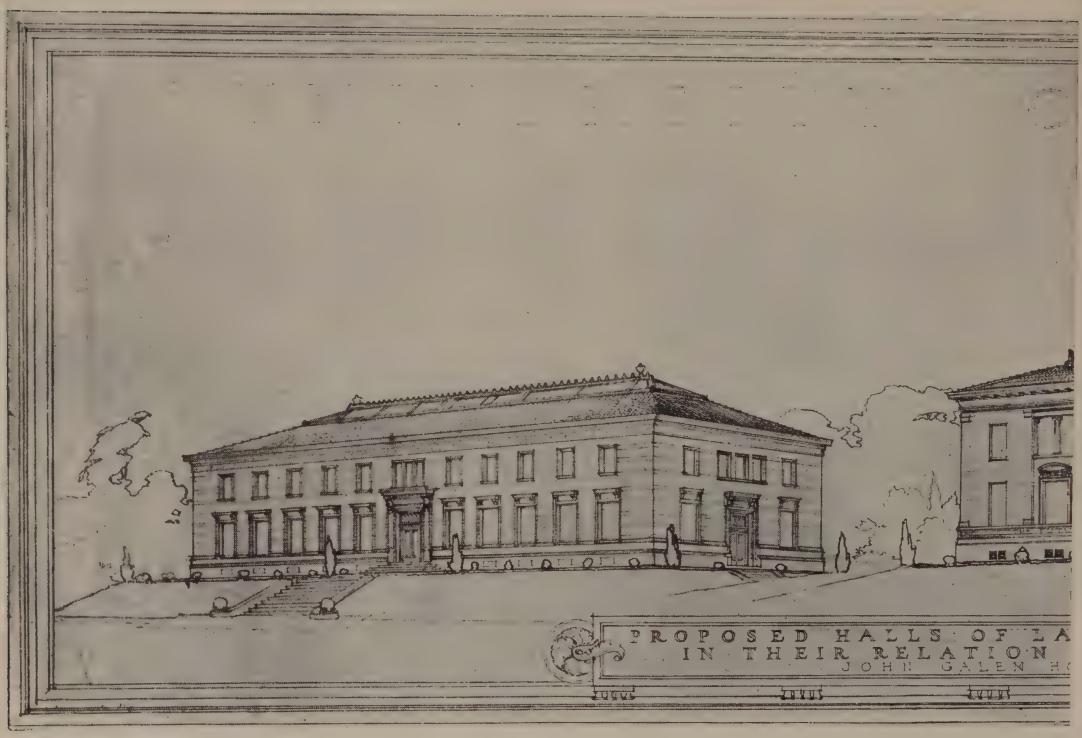
THE MEMORIAL VESTIBULE.



THE MINING LABORATORY.

HEARST MEMORIAL MINING BUILDING—UNIVERSITY OF CALIFORNIA. John Galen Howard, Architect.

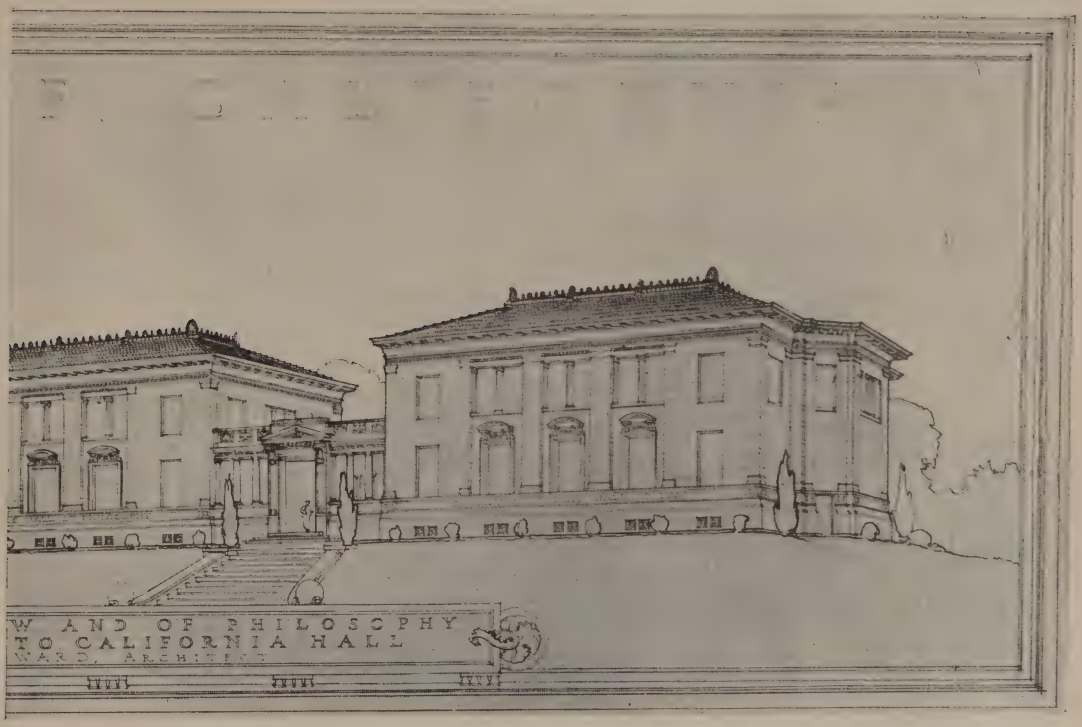
Berkeley, Cal.



PROPOSED HALLS OF LAW AND OF PHILOSOPHY, WITH CALIFORNIA HALL (ALREADY UNIVERSITY OF Berkeley, Cal.

and their effect of dignity is due in part to the fact that their design has been worthily as well as skillfully planned. Mr. Howard has never forgotten that buildings erected for a university should constitute a part, perhaps the most important part, of its means of æsthetic training. They should constitute not merely a gracious influence in the lives of the students, but one that is informing and elevating; and if the University of California continues to build in the spirit and with the success characteristic of its beginning, there will be few universities in the country whose aspect and appearance will lend a more effective assistance to their essential task.

California Hall was the first of the new buildings to be completed. Its lower floor is used for lecture rooms, and the second floor for the offices of the university. It is constructed of a white greyish granite, which is very much the best building stone to be found on the Pacific coast, and which is, indeed, one of the very best stones to be found anywhere in the country. The architect was exceptionally fortunate to obtain a stone as white, as durable, and as interesting in texture and color as is this granite, and he has used it in a manner which brings out all of its good qualities. The stone is laid in alternate courses of large and small blocks, thereby giving an interesting pattern to the walls of the building and a certain elegance to its effect, a quality which is very difficult to obtain with such a material as granite. The stone also has the advantage of cutting extremely well, so that what little detail the architect has used is sharply and effectively worked. The way in which this detail has been designed and rendered is indeed peculiarly worth attention. The management of the face of the building is an extraordinary example of strong and refined design, and so is the treatment of the window frames. When confronted by such a structure as this one is possessed by a sense of exhilaration. It has body, it has breadth, and it has refine-



COMPLETED AND ILLUSTRATED HEREIN) ON THE LEFT OF THE PICTURE.
CALIFORNIA.
John Galen Howard, Architect.

ment. Its admirable effect has not been imposed upon its frame, and it does not disguise its function, but is the direct expression of the substance and the life of the building.

The treatment of the interior is more severe than that of the exterior. The rooms and the halls on the lower floor have been designed for use and for use only. The structural beams show where they must, and the walls have merely been painted a dull, warm yellow. The severity of this treatment is, perhaps, a little uncompromising, but on the upper floor the aspect of things becomes more gracious. The middle part of this floor is used as a central hall leading to the offices on the several sides. It is lighted from above and the space so lighted has been treated as a sort of a court, enclosed by a row of columns. This arrangement not only makes a very good use of the available space, but it affords a chance for an appropriate and interesting architectural effect. The effect itself, we should say, is not quite so happy as the idea. It looks rather heavily rendered, in as much as the court is situated rather within than without the building. But if it is lacking in elegance, it is not lacking either in dignity or propriety.

About the Greek theatre, which is in use without being actually completed, it is scarcely time to write in detail. The money provided for its erection was sufficient only to build the amphitheatre and the screen. But the amphitheatre has been left unfinished in rough concrete, the colonnade with which it is to be crowned has been omitted, and many essential parts of the architectural design are not as yet even indicated in the present appearance of the structure. The day will come when this theatre, both because of the peculiar beauty and propriety of its location and because of the arduous study which has been devoted to its design, will demand the most exhaustive consideration from all disinterested students of architecture, but in justice to the architect such consideration should be postponed until the design is

really carried out. In the meantime it may be premised that the theatre from the practical standpoint has been a brilliant success. Its plan provides for the gathering and dispersal of large numbers of spectators conveniently and rapidly. Moreover, those spectators, wherever seated in the spacious amphitheatre, can distinctly hear the words of a speaker on the platform, and even when that speaker is not unduly raising his voice. The symphony concerts which are given every winter can be heard, so it is stated, as well as in the best enclosed auditorium. All this not only testifies to the skill of the architect, but it opens an interesting vista for the future of open-air performances in California. It suggests once again that the Californian, because of the resemblance of the dry climate, to the clear atmosphere of his State to that of Greece, will have an opportunity of reviving certain interesting aspects of classical life such as is possessed by the residents of no other part of America and very few parts of Europe.

Both because of its size, its situation and its function, the Hearst Memorial Mining Building is the most important structure hitherto erected for the Greater University. It was the first of the new buildings to be planned, and the idea of erecting such a building to the memory of her husband was the idea, which in Mrs. Hearst's mind blossomed into the plan now being carried out for the new university; and in this instance the personal motive was happily allied to an idea of peculiar local and historical propriety. Modern California originated in the mining industry; and it is absolutely appropriate that its State university should first of all rear a building which is not only a memorial to one of the pioneer miners, but which also is the most carefully planned and completely equipped building in the world for the study of technical mining processes.

THE UNIVERSITY LIBRARY—UNIVERSITY OF CALIFORNIA.
Berkeley, Cal. John Galen Howard, Architect.

In the plan and design of such a building the architect could learn little of value from his predecessors. He was not building a familiar type, such as a hospital or a library, and consequently he was obliged in collaborating with the

head of the Mining Department, Professor Christy, to make what was substantially a novel plan. Inasmuch, however, as they were working largely in the dark, and as a future generation might have either different needs or better ways of meeting the old ones, the plan was made extremely elastic. The main structure was built, as far as possible, as a mere shell whose interior partitions could be torn out, readjusted or rebuilt without impairing the strength or hurting the appearance of the whole edifice. All the chimneys, for instance, most subject to wear and tear, are planned independent of the structure proper. Any or all of these chimneys can be torn down to the foundations without any injury to the building or its equipment.

The dominating idea in the plan of the building was, in the words of its architect, "to keep the administrative and more public parts of the building in the front or south portion. Of these the most important artistically is the great memorial vestibule museum. It occupies the centre of the south façade, and is lighted not only by the three great arches, but also three low domes in the roof. From this vestibule rise to right and left the grand staircases, which lead to the laboratories and the drafting rooms. Within everything is workaday, substantial and convenient, but totally devoid of ornament. It is a mining building first, last and all the time. Yet the building is intended to take on a progressively more civilized aspect and a more monumental beauty, as one passes from the workshops in the rear towards the public portions in the front; and it sounds its highest note of dignity and impressiveness in the great museum vestibule, where the memorial motive is most clearly yet still reservedly announced."

It is not often that an American architect is able or willing to express himself emphatically and candidly in respect to his own work; but Mr. Howard has done precisely this in relation to the Hearst Memorial Mining Building. Assuredly the transcription of his own words will constitute the most helpful commentary on the design of the building. Writing almost six years ago, when the corner stone was laid, he described his purpose in the following terms: "The exterior treatment is of extremely simple, dignified character, based upon the classic tradition, but strongly influenced by the naif and charming work of the Spanish Fathers in California, and like that work depending largely for its effect upon the careful proportioning of its voids and solids and upon its low roofs of heavy terra cotta tile overhanging broad unornamented surfaces of wall. The aim has been to give expression to the character of a college of mining engineering as distinguished from one of art, of letters, or of natural science. The expression of belles lettres in architecture demands a more purely classic character than that of scientific studies. Such a building as a library, for instance, may without inconsistency rejoice in all the sumptuous glories of Roman architecture or the Renaissance; the tradition of the world leads one naturally enough in this direction. But the architect conceives that such delicate and highly organized motives find little place in a mining building, which demands a treatment, while no less beautiful, much more primitive, less elaborately developed in the matter of detail, less influenced by the extreme classic tradition either as a canon of proportion or as an architectonic scheme. The profession of mining has to do with the very body and bone of Earth; its process is a ruthless assault upon the bowels of of the world, a contest with the crudest and most rudimentary forces. There is about it something essentially elementary, something primordial; and its expression in architecture must, to be true, have something of the rude, the Cyclopean. The emotion roused must be a sense of power rather than of grace. Even the scale of materials, the blocks of stone of which the walls are built, should be bolder and more strongly masculine than that of any other structure likely to find a place in a great university. To produce a design for a mining building which shall in all sincerity express its purpose and at the same time shall harmonize with future buildings quite as sincere in the expression of their purposes—purposes in almost every case

THE TEMPORARY QUARTERS OF THE ARCHITECTURAL SCHOOL AT THE UNIVERSITY OF CALIFORNIA.

Berkeley, Cal. John Galen Howard, Architect.

of greater amenity—this has been the aim of the architect in approaching his task in its artistic phase. If in its treatment he shall have secured a true outward and visible expression of the inward and spiritual organism of the building, and if at the same time he shall have succeeded in throwing over it a degree of charm which shall make it seem a kind, bluff brother amid a bevy of lovely sisters, he will feel that his efforts have not been wholly in vain."

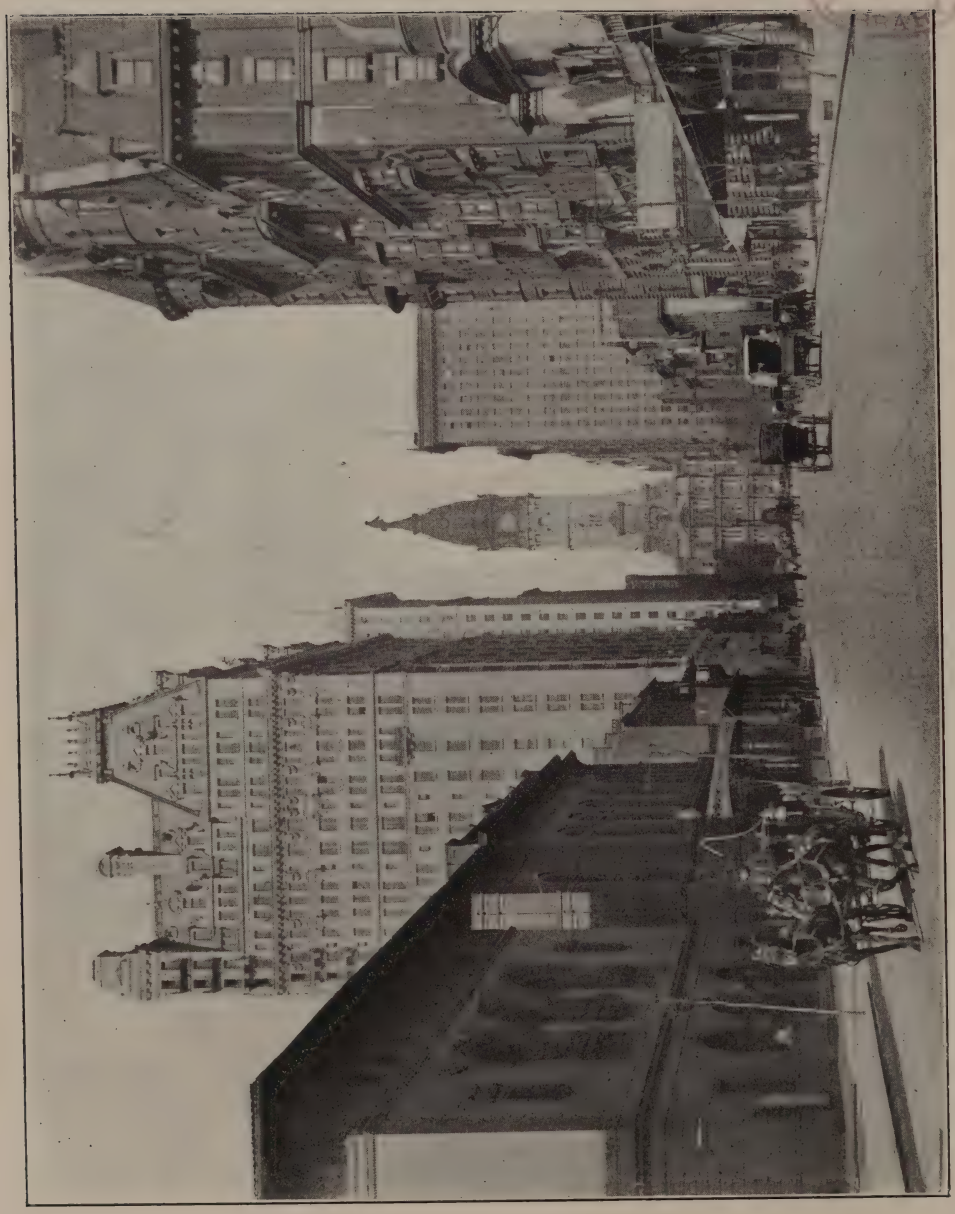
Such were the ideas dominating the architect's mind while the building was being planned. Now let us hear his own comments upon his completed work. In his address, delivered when the building was dedicated in August, 1907, he restated his purpose in the following words: "We have sought to secure beauty, not by easy masquerade and putting on of architectural stuff, but by organic composition working from within out, and letting the heart of the thing speak; we have in all frankness chosen character rather than mere prettiness as the end to be reached, sure that the highest beauty is to be derived from organically right foundations, not from any amount of surface scorings or plasterings. If then the building is of an unusual aspect, it is because the problem was an unusual one—the expression of a new thought or an old thought in a new light, or the first synthesis of a lot of old thoughts, must necessarily be new and fresh. If the expression be true, no matter how strange it may seem at first, in the end it must be seen to be inevitable.

"Useful we have determinedly labored to make this building; beautiful, we have sought inspiration at the purest founts of art to render it.

"Our dearest wish has been that it should be able to brave these times and the times to come with a front modest, yet frank—simple, clean, sterling, permanent—beautiful in its own sincere, assured and reticent way, but devoid of anything remotely suggestive of overdoing in the way of ornament or pompous grouping of its parts—its poetic message stripped of verbiage—classic to the core, yet classic of that primitive type which might almost be called archaic were it not that it is quickened by the breath of modern life."

None can read the foregoing quotations without getting a vivid sense of the earnest intensity, of the absolute personal dedication which the architect has bestowed upon the work; and their reading will explain many things about the building which at first glimpse are not easy to understand. The building is much that the architect has sought to make it. It is above all organically and strongly conceived, and most carefully and elaborately wrought. Its simplicity has become austere, its expression of power primitive and robust without being too emphatic. It gives the effect of being both a memorial and a workshop, of being both a monument and a laboratory. It can be conceived as perfectly harmonious with a group of buildings designed in the classic spirit, while at the same time embodying in itself such a transfigured version of the classic ideal that many ministers of that faith would not recognize the allegiance. It has been the result consequently of an extraordinarily complicated set of conditions, purposes and ideas, and it cannot be wholly justified or appreciated until all of the conditions are fulfilled—until, that is, it is properly approached, properly planted and properly surrounded with its neighboring buildings. In the meantime its novel appearance will make many architectural observers doubtful. The writer, too, has his doubts about one feature of the building—about the propriety, viz., of placing such a roof upon such a façade as that pierced by the three great arches. The character of the roof and the way it is connected with the walls impair to his sense the beauty of the building without contributing anything essential to its character. However that may be, the building emphatically constitutes both beauty and character, and the writer does not doubt that fifty years from now it will constitute one of the buildings erected by the present generation of American architects which will have worn best, and which, in the opinion of that day, will best deserve indefinite perpetuation.

Herbert Croly.



HORTICULTURAL HALL, SOUTH BROAD STREET. CITY HALL.
BELLEVUE-STRATFORD HOTEL.

Philadelphia, Pa.

Architecture in Philadelphia and a Coming Chance

If Boston, as it is said, be a "State of Mind," it has, nevertheless, bodily aspects which impress the casual visitor. Indeed, the famous mentality may not at first touch be noticeable. The sweeping spaces of the Common and one or two well-set buildings—the Public Library and the State House, for instance—linger in the memory of the traveller. New York has its towering, cloud-swept masses giving it distinction—its open spaces as one ascends Broadway; the stage setting wherein it plays its part impresses the most hurried stranger. Washington, too, in spite of the disfigurements upon its fair face, is nevertheless fair. Parks and avenues and public buildings give an impression of distinction which lingers in the mind. Distinction is the word. That "civic personality" which makes Florence, sleeping beside the Arno, a delightful memory. Toledo, grey and stern upon her jagged rocks; Rouen, with her spires tip-toeing to peep over the surrounding hills; Durham, spreading below her cathedral-crowned cliffs—these have distinction. Man or Nature, or both, have given them an outward form which abides in the mind; the quality of personality is there.

And this quality of civic individuality is worth cultivating. It should be a case of *noblesse oblige;* one should wish his city to have a character of its own if only for the satisfaction of feeling that it was not like the common run of towns. Would that we could foster the spirit of beauty to such an extent that it would be the general desire that this character should be an artistic one. Those of our cities which have character owe it usually to the purely commercial side of their affairs. The smoky, and not unimpressive stretches of Pittsburg, or the skyscrapers of New York are of this class. But if rightly handled purely commercial things can have artistic worth, as may be seen in some of the English and German docks. Since our people have but little artistic instinct innate in them, let those among us who have use every chance to foster it (particularly in the public schools)—that our future politicians and ward bosses may some day give us the city beautiful. And if not a matter of *noblesse oblige,* the making of a city beautiful will in the end pay for itself in the standing such a city will have in the public estimation. In these days of steam, our cities usually grow in the flat and least picturesque of spots. The most charming of the old towns are those which climb about hill-tops—built when the walled city, easy of defence, was a commercial necessity. For these Nature has done much. Perhaps the coming days of aerial navigation will again make hill-tops the favorite sites.

What little Nature has done for Philadelphia, man has quite nullified. In the laying out of his town William Penn showed the effects of his training and his lack of imagination. True, he planned five open squares—a central one at the intersection of the two wide streets of his town, and four outlying ones—and perhaps he should not be blamed for not foreseeing that streets, wide when bordered by two-storied dwellings, seem very narrow when flanked by eight, ten or sixteen-story buildings. Yet Oglethorpe in his plan for the city of Savannah gave really wide streets, alternating with narrow, and with large open spaces at the junction of the former, making a delightfully "roomy" city—a plan unfortunately not continued by his near-sighted successors of late years.

Set between two rivers on nearly level ground, her open spaces few and unimpressive, all of her streets narrow and of monotonous rectangularity; her good buildings quite overpowered by masses of commonplace or ugly structures, Philadelphia lacks compelling power. Even the roar of Chicago's double-decked rush

lingers in the memory more pleasingly; for if we must be modern and ugly, let us be completely so. The one place in Philadelphia which remains in the mind's eye is the section of Broad Street, the city's most important thoroughfare, just south of the City Hall. Here high buildings frame in a view of the tower of this building and in the afternoon light, with clouds of steam swirling past flecking the buildings with shadows, the effect is not unimpressive. Again, these high buildings seen from a hill in Fairmount Park give picturesque masses, looming like some great castle beyond the wooded hills and gleaming river. But otherwise there is no effective place in the city. One does not expect a Place de la Concorde nor a Piazza di San Pietro in America (though we will some day have their equal in Washington, and perhaps elsewhere), but there is not a place in Philadelphia which compares in architectural interest with Copley Square, Madison Square, the East and South Batteries in Charleston or Jackson Square (the old Place des Armes) in New Orleans. And effective places should be had. We should sacrifice (if sacrifice it be) some of our commercial welfare for the sake of beauty; place our public buildings and churches amid worthy settings. It is urged by some that such things are not democratic, that they smack of kingship or church dominance. But we are too democratic. The freedom of the individual enables each owner to flaunt his inalienable right to build as ugly as he pleases; the law takes care that his building shall not endanger the public, but allows him to corrupt our taste; a thing of very serious danger in the life of the nation. By some the beauty of Paris is held up to scorn as the result of the heavy hand of the tyrant; yet many of the most charming of the open spaces in the Italian towns were established by democracies. In those days even ward bosses seem to have had a sense of beauty.

Philadelphia, in spite of present effort and some isolated buildings of interest is in its total effect depressing. Bad taste is in evidence everywhere. The huge and costly City Hall, completely filling up up a small square,—the original central square of the five planned by Penn—is ungainly in mass and poor in detail: a distorted reminiscence of the stately pavillions of the Louvre. The tower, admired by the uninitiated for its height, simply has that much more space in which to be bad. The unfortunate change in material in the upper stories—an abrupt transition from the white of stone to the dark grey of metal—is fittingly climaxed by a colossal statue of Penn, which now for many years has stood as an emblem of misplaced hero-worship and entire lack of taste. When Philadelphia's re-birth into the world of art shall arrive, the first sign will be the removal of that disfigurement. The fame of William Penn needs no such vulgar blazonment.

Facing the City Hall the Broad Street Station, of an unrelieved and unpleasant red, lifts pseudo-Gothic towers and pinnacles to the sky; the detail, particularly in the interior, is of a kind to make the judicious weep. Facing it is the costly Masonic Temple (when will cost cease to be the popular criterion of artistic merit?) of a supposedly Norman type, the rather stately lines marred by a tower with most preposterous chopped corners and over-hanging pinnacles. On another side of the square is the tall Betz Building, of a bastard Richardsonian type; it needs no other comment. The completed section of the new Wanamaker Building by Mr. Burnham on a fourth side, is the only pleasing thing in the square. A little farther north on Broad Street is the Academy of the Fine Arts, a venerable institution housed in a building also costly, whose façade in the Victorian Gothic, or something else, is weird and strange. It is only surpassed by the Library of the University of Pennsylvania, the "fortified greenhouse," than which nothing more grotesque could be imagined.

However, these buildings and others of less importance in the debasement of public taste are relics of the low-water mark in American architecture—for them Philadelphia is "more to be pitied than blamed," as the melodramas put it. But another structure of much more recent date testifies to the still degraded state of the public art-standards, the

popularly-admired Smith Memorial in Fairmount Park.

This Park is a beautiful stretch of rolling country lying on both sides of the Schuylkill River somewhat above the city; narrowing strips extending down toward the centre as far as Spring Garden Street, where are situated the old water works and reservoir. Below this point the Schuylkill, spanned by ugly bridges and bordered by filthy coal and freight yards drags its discouraged length toward the Delaware, an eyesore, and, to one who has looked upon the Seine, a lasting reproach. It was in Fairmount Park that the Centennial was held (do you know what B. C. stands for in Philadelphia?) and its chief building, Me-

PENNSYLVANIA R. R.—BROAD STREET STATION, CITY HALL SQUARE.
Philadelphia, Pa. Frank Furness, Architect.

MEMORIAL HALL, FAIRMOUNT PARK.
Harry J. Schwartzman, Architect.

Philadelphia, Pa. THE MASONIC TEMPLE—CITY HALL SQUARE.

morial Hall, remains; a dignified and reposeful piece of pseudo-classic design. Yet even here the trail of the serpent is seen, for in recent years the simple lines of the low dome have been marred by a golden Liberty Bell, surmounted by some symbolic figure, let us hope, not Art, on such a pedestal.

Near this building rises the Smith Memorial—a monumental entrance hundreds of yards from the real beginning of the drive, on either side of which it abuts, and erected to the memory of certain personages well known in the Civil War, who seem to be placed there to glorify Mr. Smith. This monument is absolutely lacking in taste. Curved exedra-like wings are pierced by large arches, curved in plan; two slender Doric columns rise from this too-high first stage, supporting large bronze generals; and the lack of harmony between these slender vertical members and the heavy horizontal masses below is exceptionally awkward.

THE SMITH MEMORIAL ENTRANCE, FAIRMOUNT PARK.
Philadelphia, Pa. J. H. Windrim, Architect.

In a recent talk, Mr. C. Howard Walker noted the fact that the things we taste are carefully subjected to law; that steps are taken to save our sense of smell from disagreeable odors; that Chicago has even a society for the suppression of noise; but that our sight, the sense that man would part with last, is continually and everlastingly offended, and we take no steps to relieve matters. Too true. And we have no thought of the debasement of taste in the coming generations. Our eyes have grown callous, and the artist who keeps our senses alive to beauty is more often laughed at than revered as a saviour. For the future of American art, let us form societies for the destruction of buildings which otherwise will retard our artistic growth through numberless years.

The buildings of the Colonial period are among the most interesting in Philadelphia. Before all, of course, comes Independence Hall, recently carefully restored. The view of this, seen across

Independence Square, is perhaps the most distinctive note in the city. Unfortunately, the square is surrounded by a miscellaneous collection of business buildings, forming a setting not at all worthy of the most important historical monument in the United States. And the front of the building, set rather close to Chestnut street, has facing it a row of buildings whose diversity is only surpassed by their ugliness. Another sign of the artistic regeneration of the city will be the removal of these buildings, even though on costly ground, and the establishment in their place of a park which will give a proper approach to this almost sacred structure. The interior has been carefully restored, but even here one sees a fearful example of public bad taste. The Liberty Bell stands in a large case,—the framing of the glass sides being of carved (or tortured) wood, forming, at the top, arches where the thirteen voussoirs bearing the names of the States alternate with voussoirs carefully cut to represent stone—vulgar beyond measure—the kind of thing that no large store could afford to have in its place. Surely this relic is worthy of a better setting.

One of the early buildings of interest is the Old Sweed's Church, in the southeastern section of the city. Originally its graveyard swept down to the banks of the Delaware; to-day it is closely hemmed in by factories and train-sheds. Much of its charm must have vanished as they came. The building is very small, built of imported bricks; a quaint belfry surmounts its small entrance tower, and to the south is an interesting arched porch. The interior is extremely simple, having a plaster vault and a gallery.

INDEPENDENCE HALL, CHESTNUT STREET, BETWEEN 5TH AND 6TH STREETS.
Philadelphia, Pa. Andrew Hamilton, Architect.

Two other Colonial buildings of which the city may be proud are Christ Church and St. Peter's Church. Christ Church, built in 1727, is a fairly rich example of the Colonial church of which St. Philip's, Charleston, is perhaps the

ST. PETER'S CHURCH, PINE AND 3D STREETS.
Philadelphia, Pa.

most beautiful example. Of a fine tone of red brick, it stands in a narrow yard, the rear wall of the chancel rising from the sidewalk; the western face, with the tower on the central axis, has modern business buildings rising within a few feet of it. The present entrance is from the yard through a door in the north side. The interior is of the usual type, with its awkward morsels of entablature between column and arch, Palladian-motive chancel window and high pulpit. The pews, unfortunately, have been modernized, and the modern stained glass windows are not particularly harmonious.

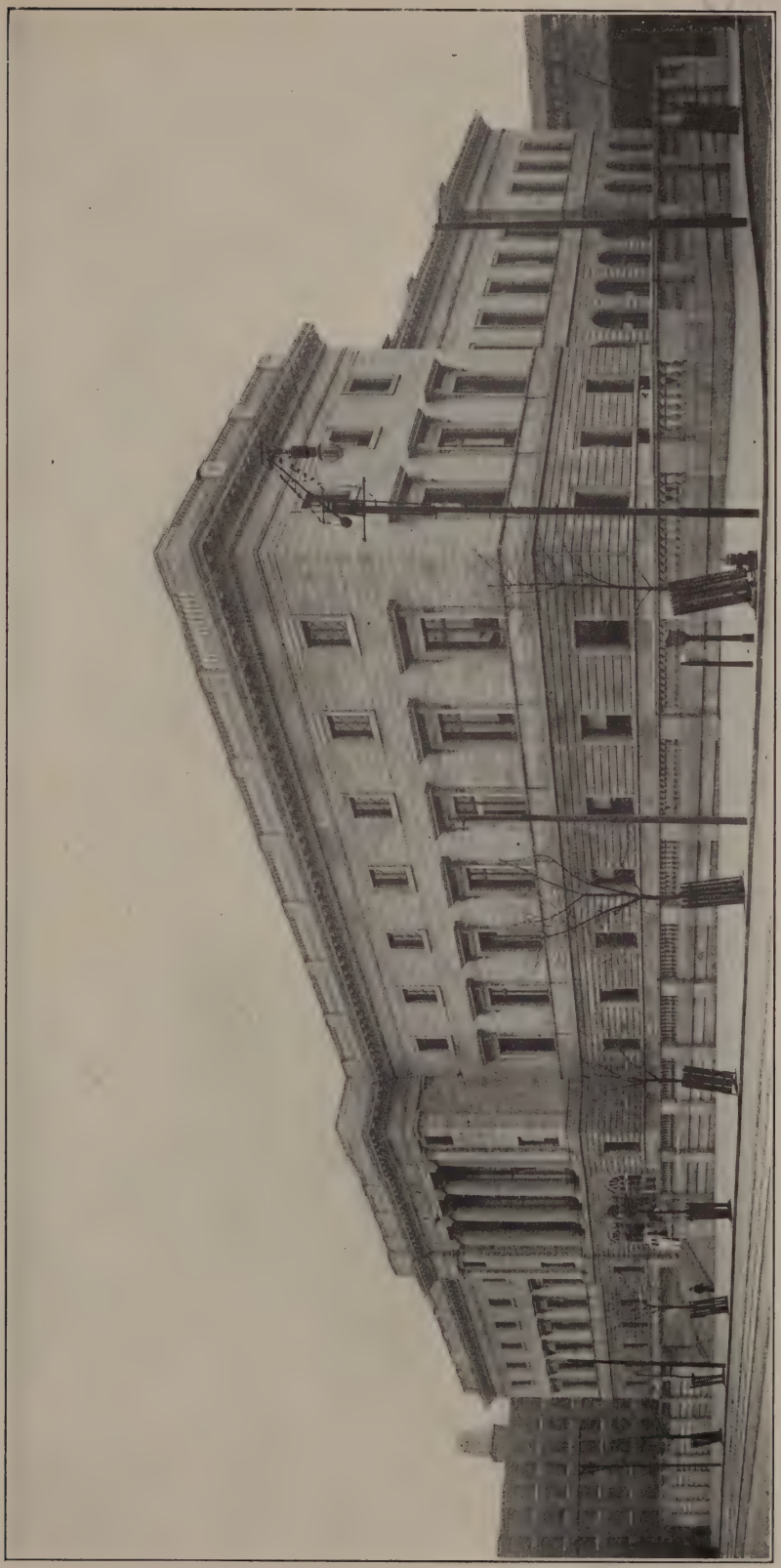
St. Peter's Church, though of a less ornate type, is, on the whole, more pleasing. It has retained its large graveyard, dotted with fine trees; and its massive tower and simple spire, as seen from the northwest, are wholly charming. The interior is as pleasing as its brown exterior. The original pews have been kept, adding much to the old-time effect, and the placing of the reading-desk at the end opposite the chancel is an interesting and unusual feature.

The main building of Girard College is a fine example of the period; a really splendid temple of marble, which has, of course, no relation to its interior. Philadelphia boasts of a few old banks and churches of this period which are not uninteresting.

Of modern buildings, Philadelphia has many of the first rank. Unfortunately, they are so scattered that they are quite swallowed up in the general run of mediocre and bad stuff. Perhaps the most important is the completed portion of the Museum of Arts and Sciences of the University of Pennsylvania, by Messrs. Cope, Day and Eyre. The part already built will probably be still more charming when the whole composition is completed. It is, generally speaking, in the Lombard Romanesque style, the "Seven Churches" at Bologna having evidently suggested wall and column treatment. But the style has been handled in no straight-laced archaeological manner, but with a sympathy and freedom that is entirely captivating. It is most emphatically the kind of building that must be lived with to be fully appreciated.

MAIN BUILDING, GIRARD COLLEGE, GIRARD AVENUE.
T. U. Walter, Architect.

The completed portion shows a small court, open toward the street, partially screened by a high terrace and well-composed steps and gateway. The projecting wings are terminated by small pavilions, while from the central mass projects a bold entrance pavilion, its hooded white marble doorway reached by steps ascending from either side.

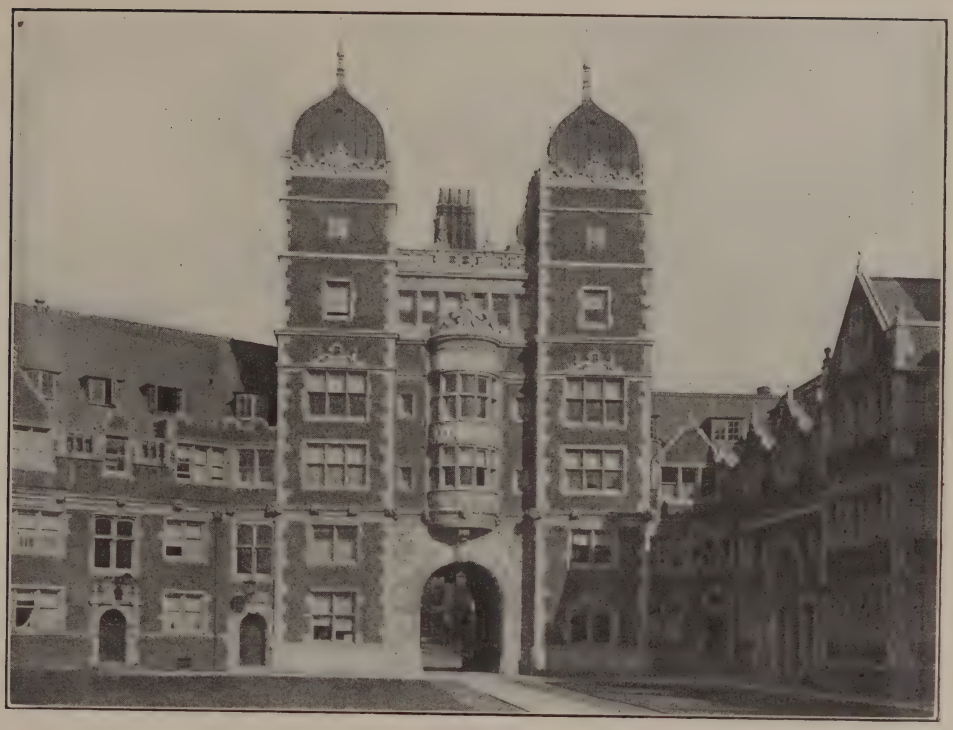


THE U. S. MINT. SPRING GARDEN STREET, BETWEEN 16TH AND 17TH STREETS. Aiken & Taylor, Architects.

Philadelphia, Pa.

GYMNASIUM, UNIVERSITY OF PENNSYLVANIA.
Philadelphia, Pa. Frank Miles Day & Brother, Architects.

LIBRARY, UNIVERSITY OF PENNSYLVANIA.
Philadelphia, Pa. Cope & Stewardson, Architects.



THE BIG "QUAD"—DORMITORIES OF THE UNIVERSITY OF PENNSYLVANIA.
Cope & Stewardson, Architects.

MUSEUM OF ARTS AND SCIENCES, THE ENTRANCE FEATURE—UNIVERSITY OF PENNSYLVANIA.

Philadelphia, Pa.

Cope & Stewardson,
Frank Miles Day & Brother, } Associated Architects.
Wilson Eyre,

The brickwork has been handled in an exceptionally clever manner. The effect of long Roman brick is obtained by joining two ordinary bricks with a touch of red mortar, and carrying about this a very wide grayish-yellow mortar joint. The columns and mouldings are of moulded brick; bands are formed of vertically or diagonally set bricks, and spots of interest result from the use of varicolored marbles set in patterns of great charm and variety. The use of white marble for capital, capstones and cartouches is masterly in its reserve, and the carving on the cartouches of great beauty. The glare of the white marble has been removed by the use of a yellow stain (perhaps excusable in a land where ready-made antiques are so numerous), and even the walks and pavements are made harmonious with a dull red tint.

If any adverse criticism of this building could be made it would perhaps be of the windows. Having to light a museum, they are filled with large sheets of glass, whose plain surfaces form an unpleasing contrast with the rich texture of the walls. And this opens the wide field of discussion as to the relation of style to function—a difficult and purely modern problem. Across a street from and at right angles to the Museum rises the University Gymnasium, by Mr. Day. It is of red brick, with creamy terra-cotta string courses, etc.—in the Tudor style; a symmetrical building, well placed upon terraces, and equally effective from the street fronts and from Franklin Field, where it forms an imposing end to the banks of seats on the other three sides of the athletic field. A recently erected dial on the façade toward the field, where the numerals proper to a clock are replaced by the twelve letters of the word Pennsylvania, is in doubtful taste.

A few blocks further west are the dormitories, by Messrs. Cope and Stewardson. The site might be defined as being composed of a square with a right-angled triangle placed against one side. The long masses of buildings which outline these two geometrical forms are broken in a most interesting manner, and a considerable difference in level between the "Big Quad" and "The Triangle" is used in a very effective manner. The style chosen is a free adaptation of the early English Renaissance, the material being a pinkish brick, with a good deal of white stone with much clever carved work. The choice of this style has been adversely criticized; but setting aside the question of the beauty or fitness of this rather than some other style, it must be admitted that the buildings are very effective. It would be interesting if the critics would come forward and tell us what would be the logical style for the dormitories of an American university.

Horticultural Hall, by Mr. Day, is a straightforward piece of design, interesting in its use of color; a richly painted frieze under the wide projecting roof is as an oasis in the drab desert of the city. On Seventeenth street rises an interesting Baptist church, of a general Romanesque type, by Mr. Seeler. Its position, on the corner of two narrow streets, with incongruous surroundings, injures the effect very decidedly. Internally it is a harmonious mass of golden-brown and red-gold tones; the scheme is that of a dome on pendentives, with galleries under three of the supporting arches.

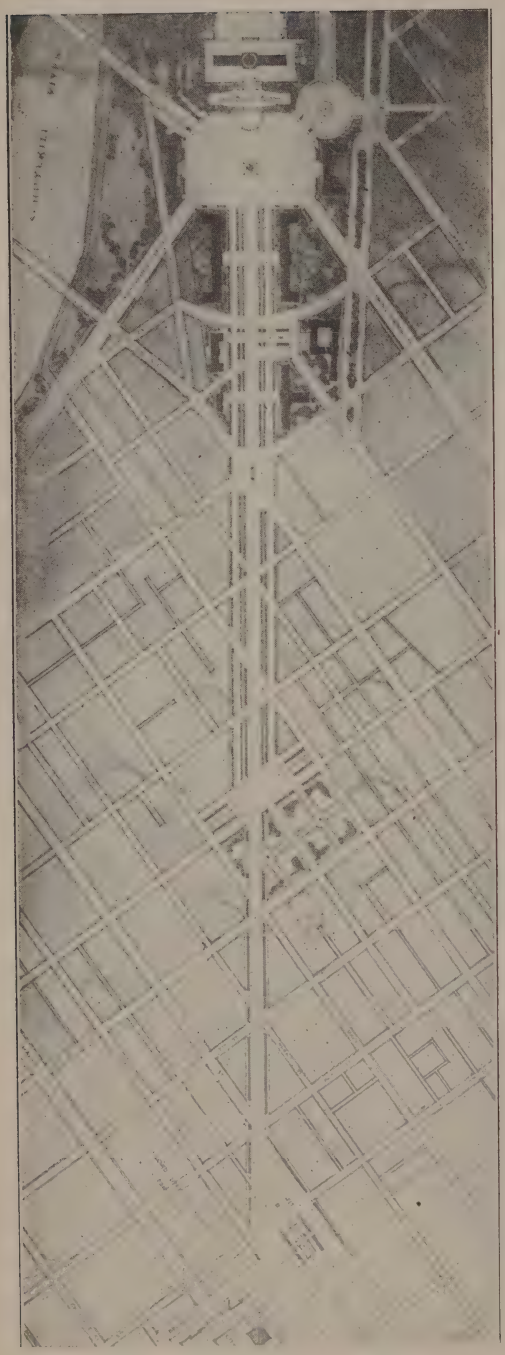
The new United States Mint, on Spring Garden street, by Messrs. Aiken and Taylor, is a restrained piece of classic Renaissance design (what does one call a building that is neither Roman nor Renaissance, and yet much of both?). Near the City Hall is being completed a very refined, classic white marble structure by Messrs. McKim, Mead & White, which one is surprised to learn is neither a church nor a library, but a bank for the Girard Trust Company: a throwing away of a splendid chance to further the cause of logical design. Near by, on Chestnut street, by Messrs. Price & McLanahan, is an interesting store-front, in the detail of which the influence of the University Museum is felt, though the proportion of voids to solids is, from the nature of the building, unpleasant. The Lyric Theatre, with a classic façade and a too-classic

interior, the new Elks building, and the St. James Hotel, the last two of the French school, are worthy of note.

As Philadelphia is called the City of Homes, an extended review of her residences might be expected. But, if it may be so stated, the most interesting of the city's residences are outside of it, and an examination of the many and beautiful suburbs would lead us too far afield. In the city proper, though there are several residences of interest, they have hardly any appreciable effect on the general aspect. And, particularly in the newer portions of the city, blocks of houses are being built by the score, which for cheap pretentiousness and benumbing ugliness have rarely been equalled. Here is a field of labor for the philanthropist and the artist with an eye to the future city beautiful: let them look to the housing of the small rent-payer. Living in such a dwelling must be as fatal to the development of a sense of beauty as the contemplation of the aforementioned Smith Memorial.

THE PHILADELPHIA PARKWAY, AS PLANNED FOR THE FAIRMOUNT PARK ART ASSOCIATION—BIRD'S-EYE VIEW.

Horace Trumbauer, C. C. Zantzinger, Paul P. Cret, } Associated Architects.



THE PHILADELPHIA PARKWAY, AS PLANNED FOR THE FAIRMOUNT PARK ART ASSOCIATION—PLAN.

Horace Trumbauer, C. C. Zantzinger, Paul P. Cret, } Associated Architects.

Returning to the subject of the general impression given by the city, it must again be stated that Philadelphia lacks effectiveness. Of the buildings mentioned, only St. Peter's, the Mint and the Gymnasium of the University of Pennsylvania have any kind of a setting. Placed upon narrow streets, hemmed in by unrelated structures, they cannot but fail of effect. Comparing our cities with those of mediaeval Italy, for example, we feel that the people of those almost Dark Ages were far ahead of our "enlightened" citizens; there every public building has its proper setting. We, instead of crying out upon such things as are done to-day, merely shrug and say: "Too bad, but anything else is quite impracticable." Where is the Peter the Hermit who will arouse us to a crusade against the unsightliness of our cities? But Philadelphia is to have a chance. Fairmount Park, before mentioned, lacks any adequate approach from the centre of the city. So buildings are now being demolished to make way for a great boulevard which shall open a spacious drive from the City Hall to the nearest point of the park, at Spring Garden street. It is proposed to have an imposing entrance to the park, the possible placing of an art gallery upon the high reservoir site being an interesting feature of the scheme. The boulevard is to be planted with trees and ornamented with fountains and statues. But as yet the most important thing has not been done. No restrictions have been placed upon the buildings which will line this great thoroughfare. And there Philadelphia has the chance to make or mar her artistic reputation. Should some limit of height, some restrictions as to color and style be imposed, there is a chance of having a vista which will rival the Champs Elysées or the new Mall in Washington. One can picture such a street, lined with stately buildings, where the uniform cornice line is pleasingly broken here and there with well-placed tower or dome, where the color is varied enough to save it from monotony while harmonious enough to preserve the effect of general uniformity. In such a street,

in such a vista which would impress the visitor, the city would have a money asset of very real value, an advertisement surpassing any other she could put forward. And all at no extra cost! Simply by restricting the property: by sacrificing the vagaries of Tom, Dick and Harry to the aesthetic welfare of the rest of the citizens.

But perhaps the idealist has no place in this modern world of ours. And we can see, in our mind's eye, this parkway as it may perhaps materialize. Here a cloud-kissing apartment house, there a modest two-story Colonial building; on one side a pink granite bank, on the other an *art nouveau* store flaunting its gaily colored terra-cotta monstrosities in the face of the world. And at the end, William Penn, on his five-hundred-foot pedestal.

Heaven help Philadelphia in her judgment in this matter!

Huger Elliott.

STUDY FOR THE SCHUYLKILL RIVER EMBANKMENTS AND ADJACENT PARKS AND AVENUES.

Philadelphia, Pa.

Architects: C. C. Zantzinger, C. L. Borie, Jr., } East Bank.
Architect: Paul P. Cret, West Bank.

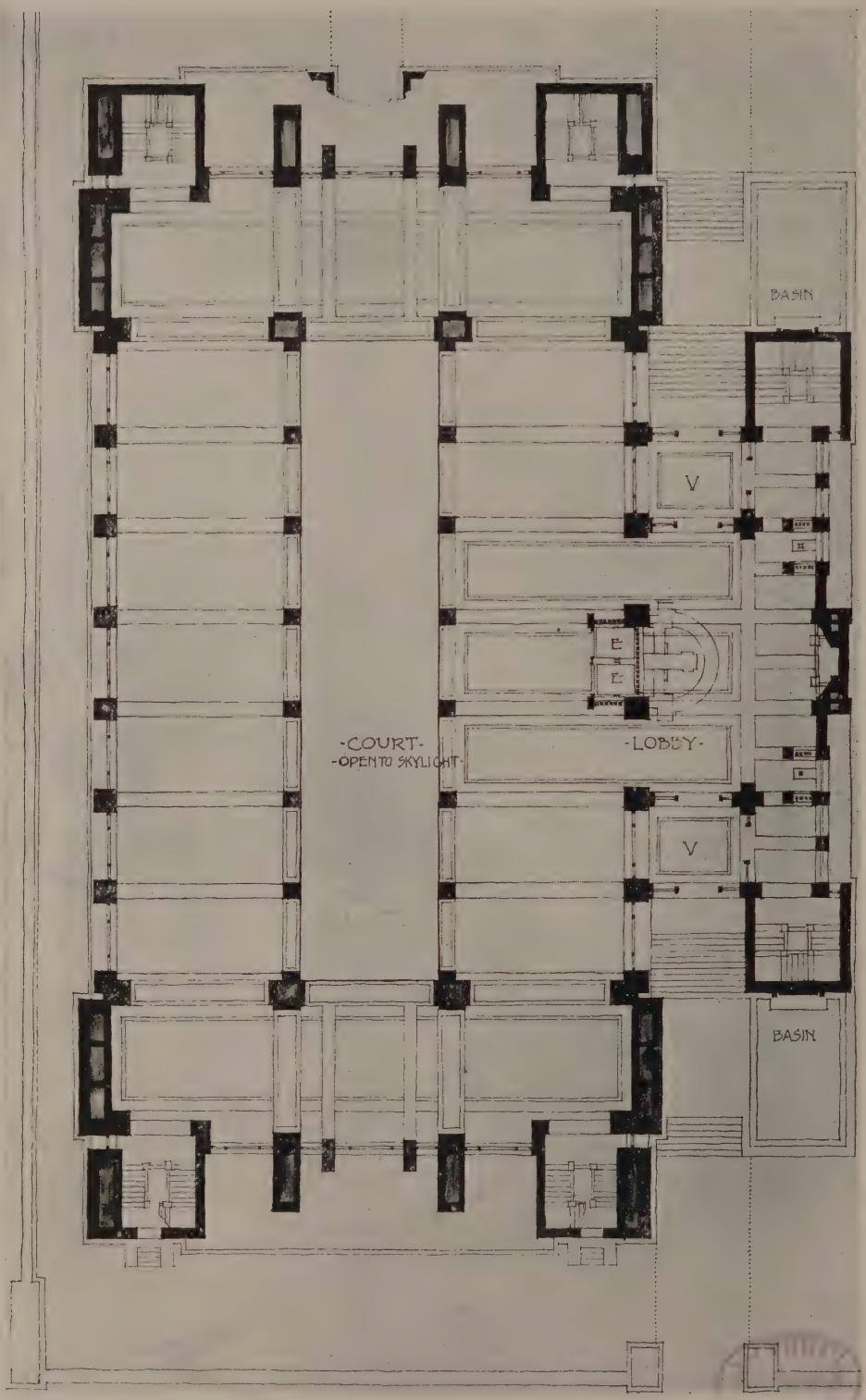


FIG. 8. LARKIN BUILDING—MAIN FLOOR PLAN.

Buffalo, N. Y. Frank Lloyd Wright, Architect.

The Larkin Building in Buffalo

This business building, the architectural creation of Mr. Frank Lloyd Wright of Chicago, is reproduced in many excellent photographs, some of which will be shown in this article and others in the March number of the Architectural Record. From among them I select Fig. 1 as the most capable of giving a general idea of the design. The plan given in Fig. 8 shows the purpose of each member of the building, and the scale can be estimated as to the heights, on the basis afforded by the steps of the entrance doorways, checked by the height of the doorway (seen in Fig. 1) themselves, and by comparison with the plan. It is not safe to utilize the courses of brick in this way, because their height is uncertain; the bricks may be of unusual dimension or laid with unusually wide joints. The nearest tower-like mass in Fig. 1—that against which the telegraph pole is seen relieved—is about 90 feet high. The broader mass behind it would be, then, about 110 feet high, and this appears to be the highest level of the walls. A perspective draughtsman can easily determine the relative proportions, as width compared to height, etc., but this front may be taken, in the absence of any figure dimensions on the plan, roughly as 90 to 95 feet in width, not, of course, including the north wing seen in Fig. 2.

That front shown in Fig 1 is called in this paper the east front. The longer side, showing in the same picture seven windowed bays divided by square buttress-piers, is called here the south flank.

It is possible to gain some knowledge of the character of the building by means of photos of the interior. Twenty excellent interior views are found in the collection above mentioned, and Fig. 3 shows how the building has a nave and aisles—the nave shown in the illustrations having windows at the ends, and a skylight overhead; each aisle is divided up into four lofts or stories of 16 to 17 feet each, in the clear. The broad end windows, seen in Fig. 3 at the end of the great hall, are the same windows that show in Figs. 1 and 2 between the buttresses, and they correspond with the arrangement of the south front, as in Fig. 1—note the four stories of broad windows flanked by narrower ones, which are seen within and without alike. One relation between exterior and interior is seen in this—the square brick piers which divide what we here call the nave from the galleries at each side—a long double row of them are on the same axes as the buttress-like piers crowned by globes and human sculpture, in Figs. 1 and 2.

In Fig. 3 there are partly seen the large galleries, at the left and at the right hand of the central skylighted nave. These halls are of only moderate height—one story of windows to each, as seen in Fig. 4, which gives the interior of the fourth story, south side. Each one, as well as the floor of the high nave, is filled rather closely with desk-tables, at which are seen seated clerks fully occupied in their employ. In this view, we are looking eastward, the wondow on the left and in face of us are those seen from outdoors in Fig.1, and the central nave is north of us, on our right.

The western end of the building is very closely like the east front; but the northern side as shown in Fig. 2 is masked by projecting masses of building which include a great vestibule with entrance doorways to east and west. In the northeast detail view, Fig. 5, the doorway at the head of the steps where a young man is standing is one of those two entrances; it has the firm name on the large fan-light, and is probably the working entrance. The plan shows a similar doorway at the west of this one, and opposite to it. The houses of the town and a church crowd the site rather closely on the northern side.

The square towers at either end and flanking the entrance in Fig. 5 are about 18 feet in horizontal dimension. That one seen in Fig 5 has the overplus of water very skilfully treated as a cascade

with a sculptural setting. The two outer towers, seen in Fig. 1, have small doorways, with steps of approach. These are ventilator and stairway towers, and that with the fountain contains also a staircase.

In tracing the analysis of this building through all this pile of photographs, and in setting down, as above, its scheme, we have also partly prepared ourselves to judge of it as a work of architecture. The lover of architecture who looks, perhaps for the first time, at a building so entirely removed as this one from the traditional styles and schools feels a shock of surprise, and this a surprise which is the reverse of pleasant. Few persons who have seen the great monuments of the past, or adequate photographs of them; who have loved them and have tried to surprise their secret of artistic charm, will fail to pronounce this monument, as seen in Fig. 1, an extremely ugly building. It is, in fact, a monster of awkwardness, if we look at its lines and masses alone. It is only capable of interesting that student who is quite aware that the architects of

FIG. 1. LARKIN OFFICE BUILDING—REAR.

Buffalo, N. Y. Frank Lloyd Wright, Architect.

the modern world during fifty years of struggle have failed to make anything of the old system—the system of following the ancient styles with the avowed purpose of developing some one of them and going on to other things.

For such a task, the as yet unperformed duty of making comely a hard working and economical building, the designer might feel that Roman colonnading was out of the question, as extravagant in cost and waste of space, and the frankly arcuated styles of the Middle Ages unavailable for similar or equally cogent reasons. He might find his only available suggestion from old times in the seventeenth century Italian, and the eighteenth century French palaces—in styles which depended upon fenestration. And then he might well say that he was tired of seeing imitations of those monuments; that the popular and successful architects of the time have filled our cities with such an array of feeble school studies, based upon plans good in themselves but powerless to suggest an architectural treatment of the whole, that he will have none of that pseudo style.

Admitting, then, that the chase of the Neo-Classic, of the Gothic, of the French Romanesque, has come to nothing, that we are as far as we were in 1850 from a living style of architecture, and even from anything which is worthy to be called architecture at all, when a large mass of the work of a period is taken together, we shall find that the building we are considering puts on a new aspect.

FIG. 2. LARKIN OFFICE BUILDING—FRONT.
Buffalo, N. Y. Frank Lloyd Wright, Architect.

Do we find in this building none of those familiar motives—those accepted details which are architecture for us? It is because the designer of this building was determined to furnish nothing which his practical requirements did not call for. Is there no visible proof? It is be-

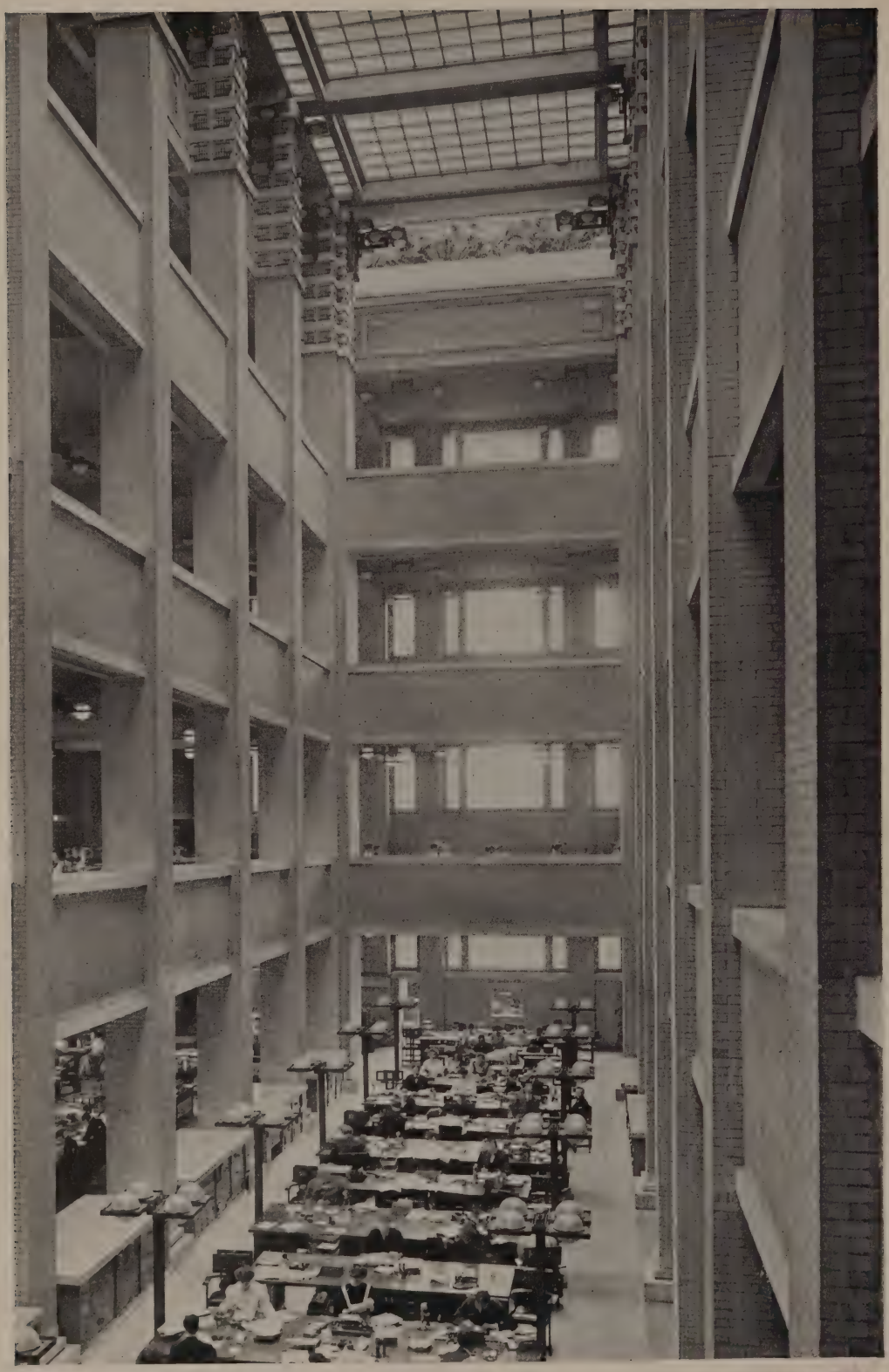


FIG. 3. LARKIN BUILDING—CENTRAL COURT.

Buffalo, N. Y. Frank Lloyd Wright, Architect.

cause a flat roof is just as easy to make tight and durable, with modern appliances of building, and because a swarm of skylights and other utilitarian openings are better and more easily accommodated in and upon a flat roof. As there are no chimneys, giving an opportunity for an agreeable breaking of the masonry into the sky and the sky into the masonry? It is because there are no separate fires, each fire requiring its own flue, and that flue carried well above all obstructions. There is probably one fire, and one only, in the building; moreover, that one fire is driven by a forced draught and requires no tall chimney shaft to make it burn. Is there no system of fenestration—the windows, and therewith the doors, showing in pretty groups or in long-drawn sequence carefully balancing one another? That is because the building consists of five equal stories, used for similar purposes; divided generally into long, unbroken halls—lofts, in short; and because it seems a feeble thing to do—to break up the arrangement of windows *merely* for the sake of pretty proportions. Are the grouped rooms and closets of utility arranged, even at the expense of the building, by thrusting forward their crude masses to mask and distort, what might have been the effect of the main structure, all as seen in Fig. 2? That is because this is to be an economical, working building, the offices of a great business house, and because it was thought well to be resolute in the chosen way and not to pretend to build a monument of architecture when a working structure was desired.

FIG. 4. LARKIN BUILDING—FOURTH STORY GALLERY.
Buffalo, N. Y. Frank Lloyd Wright, Architect.

It is, indeed, quite certain that in New York the newly erected business building at the corner of Wall Street and Broadway, shown in Fig. 7, is more nearly like what a business building ought to be than the elaborated and delicately detailed skyscrapers around. It is certain that nothing is gained to architecture by trying to make a business

building architectural in the good old sense. The fine arts have nothing to do with the hustle and bustle of daily bread-

FIG. 5. LARKIN OFFICE BUILDING—DETAIL OF ENTRANCE.
Buffalo, N. Y. Frank Lloyd Wright, Architect.

winning operations. Those are hostile influences, as Ruskin pointed out much more than half a century ago; or it might be urged with still greater force that fine art and active mercantile pursuits are mutually exclusive. If you are to enjoy a work of art you must have leisure and a quiet mind; if you are to produce a work of art you must have peace and a single mind. In neither case will it do to have hanging over you the

peremptory calls of the money-making organization—not one paymaster, who might perhaps forget his utilitarian requirements in the light of design and the joy of creation; but the commercial enterprise which can have no enthusiasm and no care for finer things than commerce.

We are left, then, with our sympathies enlisted in Mr. Wright's behalf, to consider what else might have been done, had the architect felt that he could not bear to turn out a building so ungainly, so awkward in grouping, so clumsy in its parts and in its main mass. Rejecting all that older styles have to offer us in the way of construction and in the way of detail, we may still ask, How did the designers work when men knew how to design? What, apart at least from the unconscious following of the style accepted during this period was their main object? They sought for light and shade. The interesting treatment of light and shade, the production of graceful and simple combinations of light and shade was their chief aim. A thought in architecture is generally a thought in light and shade.

When the great buildings of the world were designed everything else which was capable of design received it; and all design in pure form, as in sculpture, in relief modeling, in grouping and massing, is design in light and shade. The simple requirements of every-day life were met by the maker of vessels and utensils with as free and as successful a method of designing as the requirements of state and of religion; and he worked in form principally, that is, in light and shade. Earthen vessels and metal utensils were gracefully designed. And all this not because the maker cared greatly to produce a decorative object, for he also was dimly conscious of the fact that it was hardly worth while to waste design on a working tool, but because it was in-

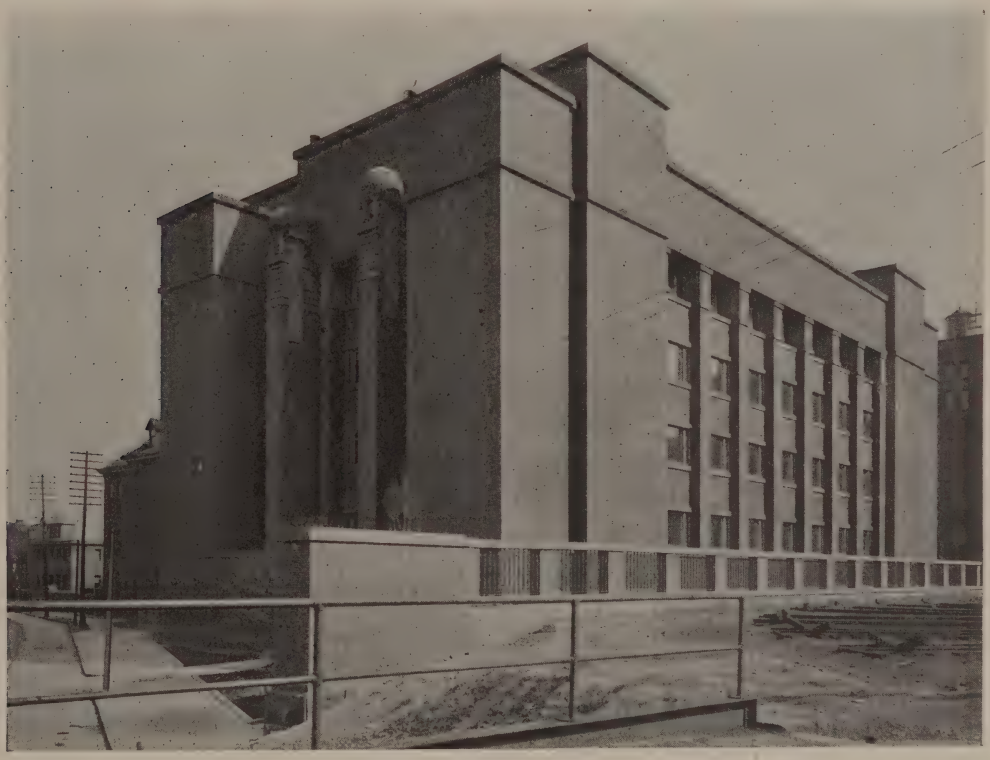


FIG. 6. LARKIN OFFICE BUILDING—REAR.

Buffalo, N. Y. Frank Lloyd Wright, Architect.

FIG. 7. NO. 1 WALL STREET BUILDING.
New York City.
Barnett, Haynes & Barnett, Architects.

evitable that a man who did fine things on a Monday would still do comely things on a Tuesday. How can you make a clumsy and an awkward thing if you have made graceful ones for forty-eight hours on end? It is a blessed trait of our nature that good habits as well as bad habits may be formed and will stick. And so the designs of a good time for architectural art are sure to be good designs, that is, to have such forms that the light and shade upon them would be lovely. The design before us could not have been made by any able man at a time when there prevailed a worthy style of design in the world around him.

One may try, comparing these seven or eight views of the exterior—one may try the experiment of familiarity to see whether with longer acquaintance the building is less ugly than it seems at the first look. Ruskin tells the story of his having been led astray by the theory of Use and Wont—by the notion that our liking for certain forms and colors is the result of familiarity, and nothing else, and he says that he kept a skull on his mantelpiece for months, but found it just as ugly when the months had passed. And so it is in all probability with this exterior. If we are to consider it as a piece of abstract form, as a thing which is itself ugly or the reverse, the opinion will remain fixed that nothing uglier could exist among objects that were found perfect in condition, cared for, and showing the signs of human thought and purpose. We should see in a moment that where such qualities as those are found to exist, the building cannot be wholly contemptible. That it is wholly repellant as a work of human artisanship which might have been a work of art and is not—so much is probably the verdict of most persons who care for the fine art of architecture.

Light and shade have been mentioned above as the chief elements in our art, and one of the ways in which light and shade are used continually in architectural design is in the way of moldings. What is a molding? What are moldings? It is, they are, a modulation of the surface following continuous lines, straight and curved. Moldings are an abandonment of plane and uniform surface for a

broken and generally rounded surface, as along an edge, and a group of moldings consists of an alternation of projecting and retreating forms, mainly of curved surface and of small dimension, although these are broken, interspersed here and there by narrow strips of flat and uniform surface, which we call fillets. Moldings do not weaken the wall where the window jamb, the door jamb, the horizontal cornice or sill course is modified by their interposition. Suppose, for instance, that one who lived opposite this Larkin Building were to have his way for a month, and were to utilize his time in making the building less clumsy in his eyes—would he not begin by molding those square corners which are thrust upon us so sharply in all the exterior views, working those corners into upright beads and coves, developing, perhaps, in an angle shaft with capital and base? This, of course, is not an essential feature. To insert it would be to give, perhaps, too nearly mediaeval a look to the design. Suppose that the corners of one of those tower-like masses were molded to such an extent that eight inches on each side of the arris, everywhere, were to be reduced to a series of soft surfaces, concave and convex, parallel one to another, and carried up from a little above the base to a little below the coping? They may be cast in brick, two or three separate patterns of molded brick sufficing for the whole composition. These moldings must either stop or return; and there are very interesting ways of arranging for either. They may stop against the stone coping or belt course itself; or they may have a piece of cast brick or of terra-cotta or of cut stone, in the mass of which the stop of the groups of moldings may be against a splay or a concave or a convex curved surface.

Moldings are important and valuable, and the designer who rejects them altogether handicaps himself—and yet there are even better things than moldings. The horizontal bands in a building like this would be interesting if they were molded; and yet they would be more interesting still if they were carried out in some greater projection in the face of the building and supported on corbels or on a little arcade. But it is evident that the first principle laid down by the designer for his own guidance was this —to avoid everything that would look like a merely architectural adornment, to add nothing to the building for the sake of architectural effect. He would repel the idea of a projecting cornice as readily as he would the full classical entablature for the top of one of these square towers, which would be no better working elements of the building if they were so adorned. Either you must add to a building something which is unnecessary, and which nothing but existing tradition even suggests to you, or you must have a bare, sharp-edged pile of blocks—a group of parallelopipedons like this. The designer seems to have said that even the rounding off of the coping shall be eschewed. He has determined that the square corner, the right angle, the straight edge, the sharp arris, the firm vertical and horizontal lines, unbroken, unmodified, uncompromizing in their geometrical precision—that these and these only shall be the features of his building. But as that characteristic of the building prevents it from having any delicate light and shade, therefore it stands condemned in the eyes of any person who looks at the building asking for beauty of effect.

There is, however, mass. There is the possibility of proportion, the proportion of the smaller to the greater, and the possibility of fitting one to another firmly and with grace. There is the proportion obtainable by the horizontal distribution, the alternating of curtain walls with towers, of projecting and receding masses; and there is the possibility of vertically succeeding masses, the parts which serve for a kind of basement at either end, and those towers and buttresses which rise above them. There is even a possibility of contrast between walls filled with windows and the massive blank space of the wall which rests upon the piers between the windows.

If, now, we seek to take up a sympathetic position, to consider the building as perhaps the architect himself consid-

ered it, there are to notice the care given to the plan and disposition of the halls and rooms, the care which has evidently resulted in a successful utilitarian building. Construction which is the simplest and most obvious, and which cannot go astray because everything is reduced to the post and lintel; workmanship which is faultless, simple and straightforward brickwork; piers and walls fairly and smoothly built; slabs and beams of stone which have been planed and dressed in the mill and left with sharp arrises; a view down the central hall as seen in Fig. 3, which is impressive because of the straightforwardness and simplicity of everything, and because of the clear daylight which fills all parts of the hall; the evidences which the pictures multiply of a minute prevision in the way of office furniture, safes and cupboards for filing papers, tables and chairs of metal and solid wood, all of the simplest conceivable forms; the electric bulbs set in racks at a convenient height above tables and counters, which racks, though of inconceivable ugliness, have yet the character of simple utility—all these things unite to make a building which no one can fail to accept. The iron railing which encloses the site comes nearer to being really a design than the larger details, generally; for in this a true economy and a sagacious utility take the place of a sense of form. Our standard is lower, when we consider some hundreds of running feet of fencing.

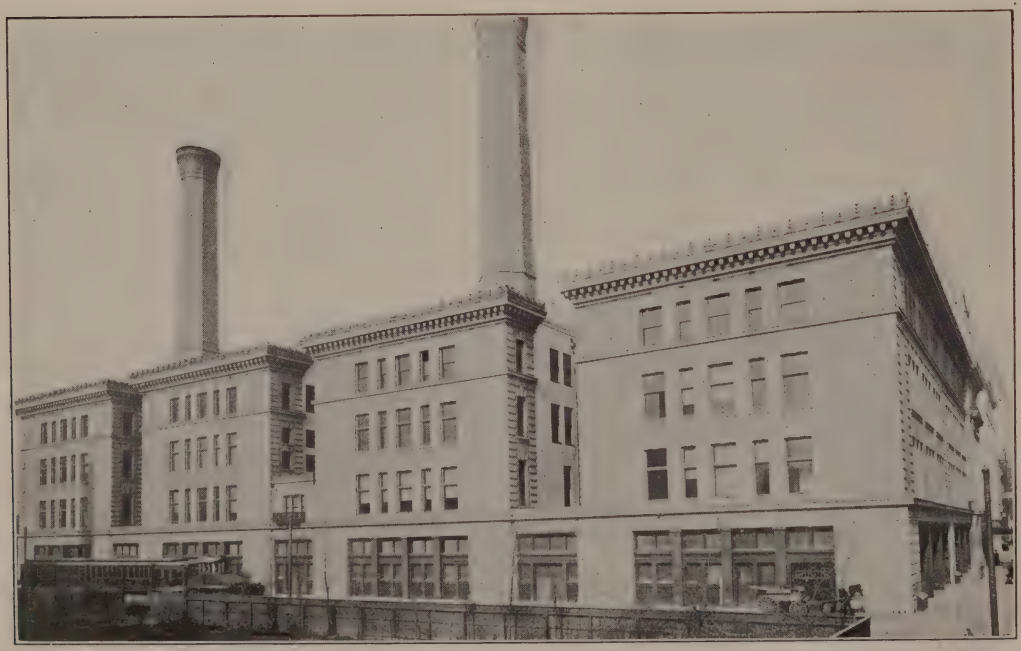
And so in the exterior it is allowable to the student to feel that a square brick shaft is as fit to contain a winding staircase or an elevator as a round or octagonal cut stone shaft costing five times the money; that windows are not absolutely necessary when there can be a skylight: and that where there are no windows, and no breaking up for windows without necessity, the result is inevitable—the result that there will be no pierced parapet nor any modifying of the uppermost story to replace in a way the cornice which, of course, such a building does not require. Here is a well-thought-out design, every detail of construction and all the appliances have been studied with care. Here is an excellent arrangement of large windows, raised high toward the ceiling, broad and low and shaped as they ought to be for utilitarian results. It is clear that there is nothing to burn about the building; it is as fireproof as such a building can be made. And while everything has been carried out with a view to practical utility, there has been also some attempt to adorn, to beautify. But we have already seen reason to think that this attempt has failed. See for the attempt and for the failure, in Fig. 8, that curious base arranged beneath the brick piers on the right; it is the Attic base reduced to its simplest form, the familiar old Attic base, with its rounded moldings turned back into the square-edged bands which those moldings were in their origin. And those square moldings are put in, the larger below and the smaller above, with the evident purpose of serving as ornament. Accepting this, let the eye now take in the curious square block decoration of the same pier in its upper part, higher than the door and between the great doorway of the entrance where the firm name is painted on the glass, and the small staircase doorway on the right. Is this a serious attempt to create a new system of design? May we assume that the inevitable squareness of the brick-built pier, all molded and specially cast brick being rejected, satisfies the designer so well that he gladly makes everything else, his sculptured ornaments and his bronze fittings, as square as the masses of brickwork? Look, then, at the system of metal frames in which the electric globes are suspended. From this picture go back to Fig. 3 and study those straight-edged and sharp-cornered groups of ornament at the tops of the great piers, and directly below the skylight see those square ornaments which are clearly nothing but ornaments. Fig. 4 shows two groups of those extraordinary connections—those terminals of the great supporting piers at the end of the high nave opposite the one shown in Fig. 3. It is unnecessary to describe the design of these strange masses of square-edged patterning; no human designer could make anything graceful or even

anything effective out of such elements as those. Taking all this accumulation of strange, sharp-edged solids, offering no modulation of surface—nothing but sharp contrast and checkered black and white—and the wonder will grow upon you more and more, how such a costly, careful, thoughtful, well-planned building should be made up of such incongruous parts, leading to such a hopeless result.

One cannot help liking broad surfaces of fair brickwork, and yet those very masses of brickwork may be so much more interesting; they may be invested with color. There is the third chance for the designer! After light and shade have escaped him, or have been rejected, deliberately, and when the artistic use of mass and proportion are out of the question, he has still at his disposal the interest and charm of color, and this exterior calls for it loudly. The careful brickwork, even as it is, has a certain momentary pleasure to offer those of us who feel dissatisfied with the flimsy character and the inappropriate ornament of the buildings around. Such a pleasure lasts but an instant, however. You turn from the florid façade to the plain brick gable wall or rear with a sense of relief, but it is merely an instantaneous pleasure which you feel in escaping from something painful. If we are to look at the building a second time, and that with renewed pleasure, we must have something else; and, where delicate play of light and shade is denied us, as here, variety of color pattern would be an admirable expedient. It is not necessary to expatiate on this view of the case, for any one who has ever made patterns in mosaic or has enjoyed the patterns that others have made for him will see what a pleasure this building might have been to the designer and to the student, had its grimness of aspect been modified by color patterns. Even the simple stripes found in the wall of that New York apartment house which faces on Fourth Avenue and East Sixty-eighth Street, three horizontal courses of dark brown brick, one of scarlet brick, and so on, in alternation, even that is beautiful. More elaborate, more effective combinations might be made where colored bonds pass through—cut across—groups of moldings.

Russell Sturgis.

PUBLIC SERVICE CORPORATION BUILDING—VIEW OF FRONT.
Milwaukee, Wis. H. J. Esser, Architect.



PUBLIC SERVICE CORPORATION BUILDING—REAR VIEW, SHOWING THE GREAT POWER STACKS.
Milwaukee, Wis. H. J. Esser, Architect.

The Building of the Public Service Corporation of Milwaukee

The Public Service Building of the Milwaukee Electric Railway and Light Company has a peculiar interest because of the many different purposes to which it is put. Below its roof is conducted practically every kind of business directly or remotely involved by the work of a large public service corporation.

The president and general manager of the Milwaukee Electric Railway and Light Co., Mr. John I. Beggs, decided that his company could conduct the greater part of its business with as much economy from one centrally situated building; and he believed, also, that the habitation of such a building would help to make the company more important in the public eye. He decided, consequently, on the erection of a structure containing space for every department of the company's business, and that this structure should be designed to make an adequate impression on the public. To this end he called to his assistance an architect, Mr. H. J. Esser; and the building, as it stands, is the result of the co-operation of these two gentlemen. Under its roof are carried on a greater variety of occupations than in any other building in the country. It contains a waiting room, a train shed, a power house and rooms for every different department of the company's auditing and essential business. Nor is this all. It is planned, also, to contain a large auditorium, reading and club rooms for the entertainment of the company's employees and a gymnasium. Thus it has its social, in addition to its business, purposes. It is in its way a club house and a theatre, as well as an office building and a power house; and it performs all these services in a very efficient manner.

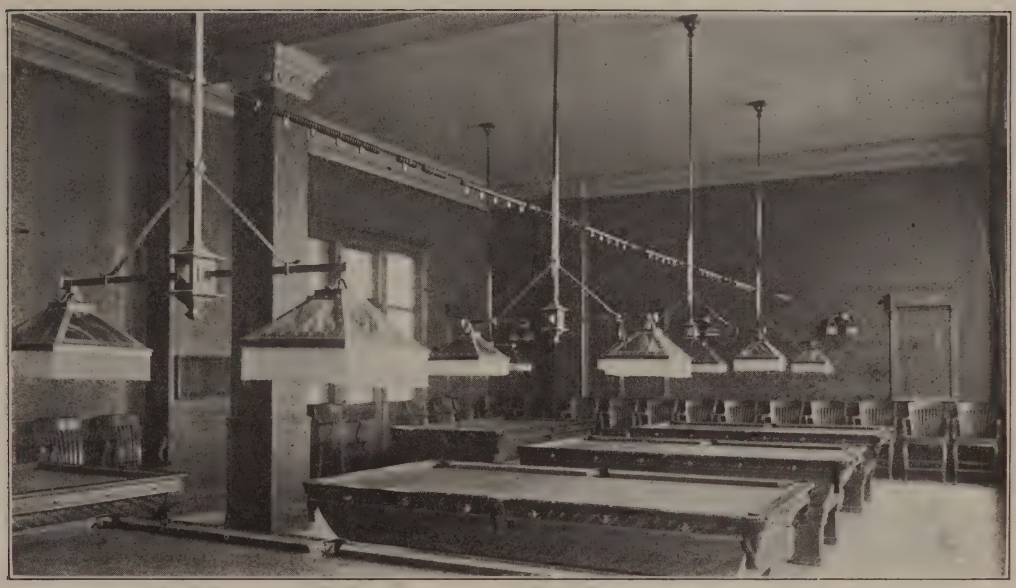
The structure covers the area of one whole city block, and a good-sized one at that, being bounded by Sycamore, Everett, Second and Third streets. Its location is central, being only one block from Grand avenue, the business centre of the city, immediately adjoining the Union Depot, and very near the most important steamer and passenger dock. Although only four stories high, it is of steel construction: but if at some future time it will pay to enlarge the building, the frame is strong enough to carry a number of additional stories.

In the basement is installed not only all the machinery needed for the building itself, but also all the boilers that supply the Milwaukee Central Heating Company with its steam, as well as the extensive storeroom of the sales department. On the first floor are located the main entrance, the sales and exhibit rooms of the lighting department, the interurban waiting room and the extensive car sheds of the company's interurban system. On the second floor are the offices of the accounting and transportation departments, the latter having access to the train shed by a convenient special stairway. The club rooms and the auditorium are also on this floor. Their object is to give the employees opportunities for recreation and study under wholesome physical and moral conditions. Space has been provided for a reading room, with a library, billiard and pool rooms, bowling alleys, a dining room, lavatories and kitchen. A gymnasium is also contemplated on the top floor. The auditorium, while it is rented for conventions and similar purposes, is primarily intended as a hall in which the men can meet and hear talks on various phases of their work.

On the third floor are the offices of the construction, rolling stock, power plant, claim and lighting departments, as well as the hospital. The latter contains operating and other similar rooms, in which injured people can be expeditiously and properly cared for. On the fourth floor are the offices of the president and his chief clerk, the directors' room and the printing office. The illustrations give some idea as to the completeness of the finish in every respect.

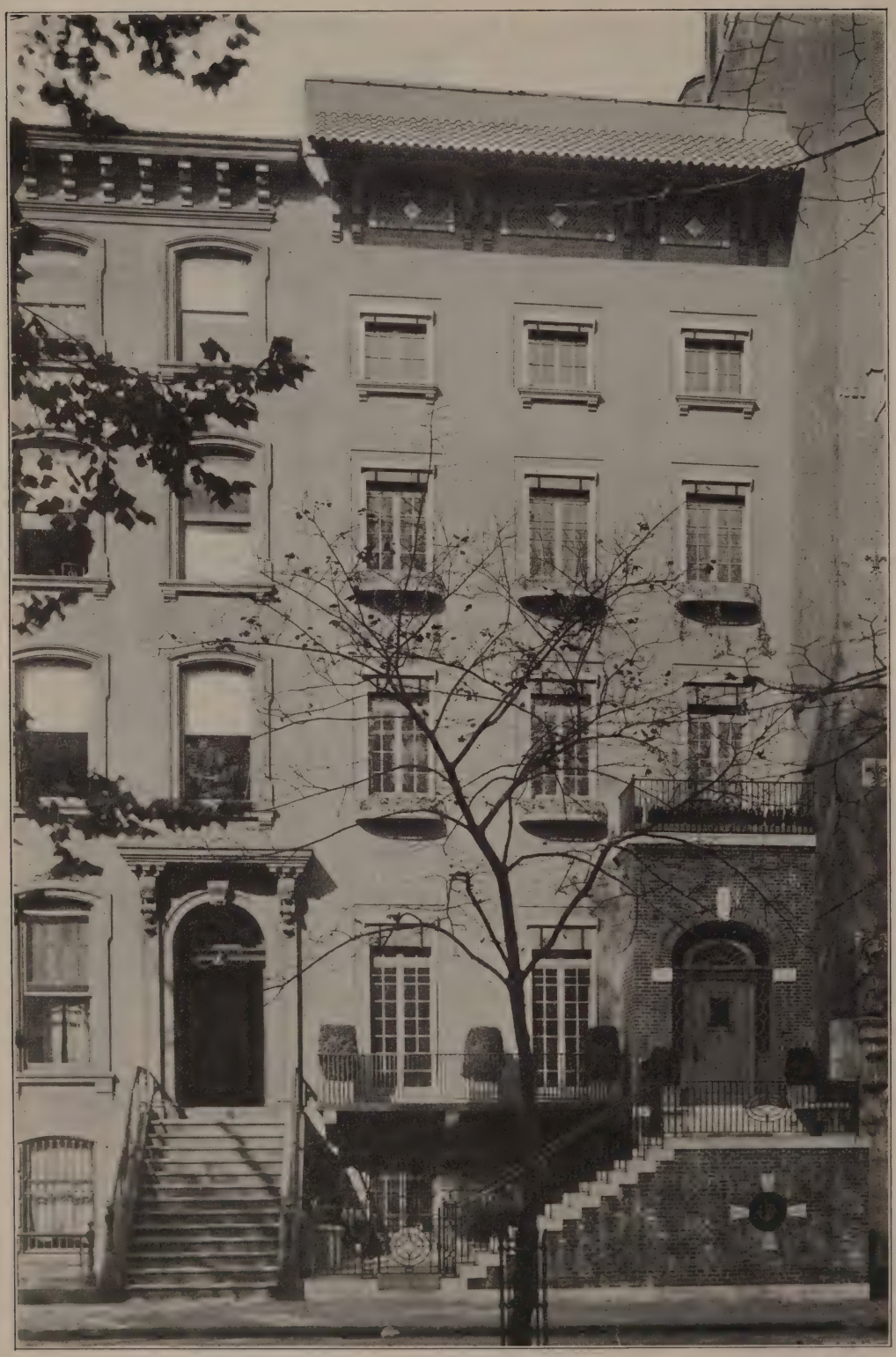
THE PRESIDENT'S OFFICE.

DIRECTORS' ROOM—MILWAUKEE PUBLIC SERVICE CORPORATION BUILDING.
Milwaukee, Wis. H. J. Esser, Architect.



BILLIARD ROOM FOR THE COMPANY'S EMPLOYEES.

THE AUDITORIUM—MILWAUKEE PUBLIC SERVICE CORPORATION BUILDING.
Milwaukee, Wis. H. J. Esser, Architect.



RESIDENCE OF SIGNOR CELESTINO PIVA.
Washington Square West, New York City. J. H. Freedlander, Architect.

NOTES & COMMENTS

TWENTY-THIRD ANNUAL EXHIBITION OF THE ARCHITECTURAL LEAGUE OF NEW YORK

In the annual exhibition of the Architectural League of New York which closed on Feb. 22d at the Fine Arts Building in West 57th Street, New York, it was apparent to the critical observer of architectural exhibitions that the architects are realizing the necessity of their cooperation if they would make architecture more popular. In this exhibition there was a noticeable lack of the elaborate feats of draughtsmanship, large plans, elaborate scale details and working drawings over which the ambitious draughtsman was wont to pore in previous years, for new "tricks of indication" in drawing and color. To him the showing must have been, to a certain degree, a disappointment, for he found instead that a large portion of the wall space had been given up to the allied arts of design. In the architectural section of the galleries he found a predominance of small plans, mere diagrams in black and white and numerous charming "photographic bits" of the work exhibited. The range of the subjects illustrated was perhaps as wide as in former years but there was noticable a scarcity of large undertakings. The exhibits of many of the older firms were missing and many new names were in evidence to fill the gaps. Suburban and country work predominated more than ever and competitive designs were comparatively few; the architectural schools and Beaux Arts Society exibited fewer drawings than ever. We will not catalogue here the subjects exhibited; most of them are already fairly familiar to the readers of the architectural journals which illustrated in their pages the majority of them. It is more to the general character of the exhibition that we would call attention.

The hanging committee is to be congratulated on the general result of its efforts, although we should like to see them carry further the idea of interesting the non-professional. It is perfectly natural for such a committee to desire to supplement the exhibits by additional information in the form of a detailed catalogue (which, by the way, is this year particularly attractive in its arrangement and manufacture) but would it not be a valuable addition to give the public right on the exhibits themselves, what might be called a detailed annotation of the building or subject portrayed and thereby immediately invite its interest in such a way that it will carry away from the exhibition a definite notion of something which has attracted its notice there? To cite an instance, would it not have been highly instructive and interesting to the hundreds of people who no doubt gazed on Mr. Herter's decorative painting, "The Attributes of the Arts," which occupied the position of honor in the Vanderbilt gallery, to have been able to read the purpose of that work, a reference to the figures of the composition and the conditions under and for which it was painted? We think that such a ready reference to and description of subjects could be extended to advantage to a majority at least if not to all the exhibits. We can think of no device which would act more powerfully to stimulate popular interest in the work of the architect and the artist, nor any method by which the layman would be more swiftly led to alter his point of view of architecture and art from ignorant adulation to intelligent interest and reason limited only by the capacity of his training and by his intelligence. At any rate the suggestion would seem worth trying; experience would readily determine its value or its worthlessness.

An added reason for imparting to the observer (who is too often merely a superficial spectator) information that really informs, is the remarks that one hears at such exhibitions and the blank expressions on the faces that one sees. A great many of these people do not understand sufficiently what they are looking at and consequently see little to hold their attention. If the architects and artists would enlighten these people they must afford them a stronger hold on the subject by some sort of popular instruction, and how could they seemingly better accomplish such instruction than by making their exhibitions illuminating in a way that every intelligent person can successfully try to understand.

HOW TO REFRESH A BROWNSTONE FRONT

The "Architectural Record" has frequently illustrated different types of English basement houses which are replacing the old brown stone fronts on the residential streets of New York; but it sometimes happens that the owner of one of these old houses seeks to make it look somewhat more cheerful without entirely doing away with it. And the achievement of such a result is perhaps as difficult a task for the architect as is the design of an entirely new façade. We are glad, consequently, of an opportunity to illustrate a case in which an old brown stone front has been refreshed with conspicuous success. The accompanying photograph shows not only the reformed façade, which is situated on Washington Square West, but also on its left, a surviving brownstone front identical with the one which has been displaced. The reader can, consequently, measure very accurately the improvement in appearance, which the architect, Mr. J. H. Freedlander, has brought about, and he can immediately detect the means, which have been used for this purpose. The old stoop at right angles with the entrance has been replaced by brick stairs parallel to the line of the building, enclosed by a simple iron railing and leading to a spacious porch. A new brick door-frame has been constructed on this porch, somewhat beyond the line of the house thus emphasizing the entrance and affording a larger enclosed vestibule. A little balcony has been placed outside the windows on the first floor; and these windows have been cut down to the floor level, so as to give access to the balcony and at the same time to stamp with greater importance the drawing room within. The old, large window panes on every story have been replaced by small ones. The old, heavy mouldings around the openings have been torn off, and a simple square recess substituted. Every window, except those of the top floor, has its little window box, and the openings on this floor have been reduced in size, so as to mark their relative unimportance. Finally the old ugly galvanized iron cornice has been removed and the front terminates in a sort of a tiled hat brim. It should be added that the surface of the brownstone has received a good rubbing, which has improved its appearance, while at the same time the joints in the masonry have been penciled. These changes in detail have given the owner of the house a smart and attractive modern dwelling in place of a dull and cheerless brownstone front; and the architect's success should encourage others to spare the owner the cost of a reconstructed front whenever such expense is not necessary.

A COLONIAL RESTORATION

The restoration of the Governor's Room in the New York City Hall, through the liberality and public spirit of Mrs. Russell Sage, is both in itself and in its suggestion, a gratifying thing. The only possible objection—since the constitution of the committee of the Art Commission which is to supervise the work seems to insure artistic and faithful execution—is that it is a pity that an individual should have had to do what the rich city of New York might so fittingly have done. It is not a wholly satisfactory answer that there were no funds available for exactly this work; but, since there were no funds, it is good to find an individual willing to do it, and to do it fully and generously. The particular form which this expression of public spirit has taken is rather novel; but it is so widely approved that we may hope it may have many imitators, if their expenditures be similarly safeguarded. The room, in its artistic excellence and in its historical significance, is of more than local municipal interest. As perhaps the most important apartment in the beautiful old city hall, it has suffered various tribulations at the hands of would-be "improvers," until little vestige of its original simplicity—which writers of the time could justly call most elegant—remained. But now the discovery of the plans of its own architect, and the fact that the committee is composed of Robert W. DeForrest, Frank D. Millet, Arnold W. Brunner, Walter Cook, and John B. Pine, make certain a wise use of Mrs. Sage's gift.

A BEGINNING OF THE HUDSON'S WEST BANK PARK OPPORTUNITY

In its January notes, The Architectural Record made a plea for nationalizing the Palisades park opportunity on the Hudson River atop the Palisades, opposite the northern end of the City of New York. The New York Herald of February 12th gives us the following news item:

Prompt action was taken in the Senate today upon the bill recently reported favorably from committee, which authorized the acceptance of the site of old Fort Lee, in New Jersey. The old fort was

used by the Continental army in the Revolutionary War, and marks the beginning of the Palisades.

The donor of the two and one-quarter acres of land which comprise the site is modest, and has not permitted his name to be made known, the negotiations being conducted by a firm of New York attorneys. Secretary of War Taft recommended that the site be accepted by the government. It is expected that the tract will be added to other land in the vicinity of the Palisades, and be used as a park.

This is a good beginning, for with its historic memories Fort Lee is a worthy entrance gate to the entire region north over which in Revolutionary days ran a military road which must have been assidiously patroled by videttes and sentries in defence of the natural fortification formed by the cliff which protected the American army encamped in the country inland. The scene centers about Tappan where Andre was hanged and the tavern where he was imprisoned. The old Dutch house bearing the date 1700 in black bricks, where Washington had his headquarters, still stands in good condition. This old road loses itself at the little hamlet of "Palisades," on the hill above the western terminus of "Dobbs Ferry," known as Sneden's Landing, where there is located a stone block-house the scene of at least one encounter with the British and which recently was used as a studio by the sculptor, Tonetti.

Lower, by the river, are the remains of old earthworks, for this passageway of the Hudson is the first above Fort Lee where an army might well cross, with the possible exception of a similar pass between Yonkers and Alpine.

The little seed sown by us in these columns and taking visible form in this proposed reservation may some day grow so that future generations may praise our forethought in the possession of a beautiful breathing spot when the great city shall stretch along the base of the hill to the west of the Palisades and across the river to the east. May the good work go on.

PROGRESS IN CLEVELAND

The expert commission which is supervising the execution of "the Group Plan" for the public buildings of the city of Cleveland, has issued a second edition of its original elaborate report "with supplement indicating the progress of the improvements." The commission is composed of Daniel H. Burnham, John M. Carrère and Arnold W. Brunner. The second edition comes not quite four years after the first. It reports all of the land required for the sites of the court-house and city hall purchased, as recommended by the board, the cost of it amounting in round numbers to $1,648,000; very much of the land for the Mall already purchased—and now, we believe, cleared; the post office about completed; the site for the public library definitely accepted; the working drawings for the court house approved (May, 1906) and the preliminary plans for the city hall approved (March, 1906). Illustrations and descriptions of these structures and of the post office are included in the supplement. The story is an interesting and encouraging record of accomplishment.

PRIZES FOR ARTISTIC WORK

Although as this is written the awards have not been announced, there can be cordial commendation of the plan of the Metropolitan Improvement League of Boston to award prizes for that local work of the year which is best in architecture, sculpture, mural decoration in public buildings, street fixtures, festival decorations, and artistic advertising. The prizes are to be gold, silver and bronze medals, and honorable mentions. Their award is to be the occasion of a banquet, which may become, it is suggested, an annual March civic festival. The spirit of the thing is almost mediaeval—redolent of the Renaissance, though recently revived in Paris, Brussels, Buenos Ayres and other places. It wakes to conscious realization that popular feeling that wherever a beautiful thing is created for the public to behold—even though the ownership be private—there something is added to the common wealth. It is well to make public recognition of this. In some European capitals, the community's gratitude for a beautiful house is expressed in a remission of taxes. This award of medals is a degree finer, because above pecuniary consideration. Socially, too, the plan is good, since its tendency must be slightly to modify the envious bitterness toward wealth.

THE FOUNDATION OF TALL BUILDINGS

The discussions which have been called forth by the revision of the Building Code of New York City have naturally turned to a very considerable extent upon the problem of the skyscraper. With the erection of a number of buildings over twenty-five stories high that problem has assumed a more acute phase in New York than in any city in the country; and many proposals have been

made looking in the direction of a limitation in the height of buildings. Among these proposals that of the Revision Commission was one of the most novel and ingenious. It did not apparently seek absolutely to limit the height of buildings; but it did seek to make the owner pay for the privilege of building high by means of a proportionate sacrifice of his ground area. A very tall building, that is, would necessarily be separated from its neighbors by larger courts than a lower one, and such a method of limitation undoubtedly seems at first glance to be reasonable.

It has not, however, been received with very much favor. All the property-owners, real estate speculators and building contractors interested in the construction of sky-scrapers have protested against it, and to all appearances their opposition will prevail. Public opinion is negligent and indifferent in such matters; and consequently the much more aggressive body of opinion, which is the result of private interest usually has its own way—particularly when the supposed representatives of the public interest are a group of men, no more intelligent, well-informed or disinterested than the New York Board of Aldermen. An American legislative council almost always acts in accordance with the wishes and opinions of an aggressive private and special interest, unless an equally aggressive body of public opinion compels them to consider the public interest as well; and hitherto no such body of public opinion has been formed in relation to the limitation of sky-scrapers. It is very probable, consequently, that the current attempts to establish such a limitation will fail—as all previous attempts have failed. The height of sky-scrapers will continue to be regulated only by business conditions, until some striking disaster will suddenly and sensationally expose the public dangers incurred by the lack of any regulation.

When the time comes, however, as it assuredly will, for some effective regulation, it is possible that such regulation will assume a form advocated by Mr. Ernest Flagg. Mr. Flagg by no means approves of the limitation proposed by the commission, who prepared the revised version of the New York Building Code. The effect of the proposed ordinance would undoubtedly be the same as that of a rigid limitation of the height of buildings. Under such a provision there would be a level in relation to every possible site, higher than which it would not pay to build. This level would vary in different cases; but the general effect would be to lower by several stories the height to which buildings are usually erected on very expensive land. The carrying out of such a proposal would undoubtedly mean a discrimination in favor of property-owners, whose land had already been improved with tall buildings; and it would for a time at least decrease the value of unimproved property in the same neighborhoods. Mr. Flagg, consequently, would not depart entirely from the policy hitherto adopted by the city. He would permit the erection of buildings to any desired height; but he would safeguard this permission with conditions, which would prevent it from becoming harmful to abutting property or dangerous to the public interest.

The sort of regulation which Mr. Flagg proposes would permit the property-owner to adopt one of two courses. In case he wishes to erect a sky-scraper, be must either buy so much land that he can almost completely surround his tower with a lower building. Or else in case his tower actually adjoins other people's property he must pay this adjoining property owner for the right to build his towering structure—a payment which would be equivalent to purchasing his neighbor's privilege of erecting a building over a certain height. The effect of such regulation would be to permit the erection of a few lofty towers in every block surrounded by buildings of a much lower, although still considerable height; and an effect of this kind would combine more economic advantages with fewer disadvantages and public dangers than would any other form of regulation, always assuming, of course, that the towers are constructed and finished with absolutely fireproof materials.

No doubt the regulation, proposed by Mr. Flagg would deprive property owners of opportunities which they now enjoy, but such a deprivation would only be a legal recognition of disabilities imposed by economic conditions. At the present time a property owner can ostensibly erect a building of any height upon a lot of any size; but his legal liberty in this respect is confined by certain obvious economic conditions. The value of any sky-scraper he erects is very much diminished by a failure absolutely to secure good light and air for the offices in the building. The owners of the first twenty-story buildings erected in New York began to realize this truth, when they were forced to acquire abutting property at a high value in order to prevent the erection thereon of buildings as tall as theirs; and at the present time no prudent capitalist will erect a building even twenty stories high without protecting himself against subsequent interference. Much more is this the case when

the proposed building is twenty-five, thirty or thirty-five stories high. Whenever such towers have been planned, they have always been surrounded either by streets or by private property under the same ownership. It is this practice which Mr. Flagg proposes to recognize legally, and such a course would merely bestow a definite legal form upon a practical condition from which no property owner can escape. He might escape from it by buying a whole block and then covering as much of the area as he could with a thirty-five story building; but the purchase of a whole block in the business districts of Manhattan has now become almost an impossible task even for insurance companies. Individuals or corporations who own whole blocks should, however, be legally prevented from covering the area with a building over a certain height; and in other cases the proposed regulation would, as we have explained, merely define a prevailing business practice.

There is also an architectural aspect of the matter which should not be ignored. From an exclusively architectural point of view, the sky-scraper will doubtless always remain an excrescence, not because it is twenty-five stories high, but because its height is wholly out of proportion to width of the street on which it is situated. One can imagine the creation of a magnificent architectural effect in case twenty-five story buildings, well designed for their purpose, were situated at certain points around the Place de la Concorde in Paris; except in rare instances our sky-scrapers will never obtain the propriety and scale which they might have when situated on very wide streets or spacious squares, and as a matter of fact, streets broad enough to give them scale, would be too broad for practical convenience. In this sense the sky-scraper must always remain architecturally heretical; but if our masters will have them, they would, under Mr. Flagg's proposed regulation, appear most assuredly to their very best advantage. A block of buildings from twelve to fifteen stories high with here and there a thirty-story tower breaking through the sky line would certainly present a picturesque appearance, and afford many attractive opportunities to the architect. A city in which such spectacles were numerous would not be a beautiful city; but it might be extraordinarily impressive; and there can be little doubt that in the course of the next twenty years the Borough of Manhattan in the City of New York will in its central portions assume such an appearance. And this consummation can be anticipated with equanimity even by lovers of good architecture provided all the new buildings, low or high, erected in these districts are thoroughly fireproofed; and providing the street layout is made adequate to the stress of traffic created by such a dense business population.

MISTAKEN "IMPROVEMENT"

Under the alluring title, "The Gentle Art of Disfiguring Old Churches," J. Cleveland Cady contributed to a recent "Outlook" an article, made emphatic by concrete stories, that showed the architectural injury too often wrought in "smarting up" the churches of old villages. And he adds, this "ill-treatment of ancient churches is by no means confined to rural communities." His protest is one of which there was need of utterance, but it isn't easy to see how the danger can be warded off. Education is a slow process, where there is need of haste, and at best it is not over thorough. He points out the danger, in a peaceful little Colonial church, of the big memorial window that the richest farmer puts behind the pulpit—"loud and inharmonious in color, frivolous in design, completely out of scale, and in conflict with the refined and restful feeling of the admirable old church." Sometimes the pulpit itself is the subject of attack; and he tells of one village church of which a loyal brother said, with pride: "Not long ago our Endeavor Band raised money and bought some transparent paper imitating stained glass and put it on the old window panes, and it seems just like the real thing—don't it now? You used to look through them and see only the blue sky, and apple boughs, and restless birds making their nests, but now—." Again, it is a tower or ceiling that is done over, or an incongruous addition that is made to the structure—all very evil things indeed, to be regretted and talked against, and which it would be well to have the family religious papers take up, since they might reach the proper persons.

DOMESTIC GLASS

When colored glass first became a factor in the decorative arts of this country, for a time it was extensively employed in domestic embellishments, but after a while it ceased to be used in the finer houses, and all because it fell out of the hands of artists into those of commercial men, who had but

one aim in view: the making of money. The sins they committed with colored glass in the name of art were indeed startling, and soon relegated the use of the material to cheap flats and corner saloons. It is hard to believe that this perversion can last forever and that colored glass will not once again take its place in the higher forms of domestic decorations. At one time it looked very much as if ecclesiastical glass would fall into the same state of deterioration and degradation, but happily a vigorous protest and a determined resistance from a number of earnest and conscientious architects stemmed the tide, and rescued it from the maelstrom of commercialism, bad taste and secularization. This, together with a greater knowledge of the principles of Christian art among the people, the realization on the part of building committees that the glazing of a church should be left in the hands of the architect, as much as any other detail in the architectural scheme, and that works of art are not sold by the square foot, has in these later years largely banished the mere trader and his "art glass" from the field of ecclesiology. He can no longer, at the behest of some ignorant donor, invade a church building, remove mullions at will, and place in the window openings a highly colored, badly drawn and devotionless glass picture.

There is no reason why domestic glass should not be restored to its proper place in the decorative arts, if architects will only lend a hand, and insist that when colored glass is used, it must be of the best in design and quality, and at a price which will permit artists of ability to give their time to the study of glass as a medium of artistic expression. Then, and not until then, will good windows be made, and domestic glass be a delight to all lovers of color.

It is true that from time to time windows have been created, and placed in public buildings or private residences, that are indeed works of art, but they are few in number and have produced no appreciable diminution in the output of the garish and commonplace products of commercial establishments, and have in no way directed the trend from mediocrity to the artistic and beautiful. It is within the power and province of the architects to bring about this change, and windows like the two which have recently been placed in a country house near Philadelphia, and are here illustrated, should stimulate them to make the effort. They must keep in mind, however, that a good window, like a good oil painting, commands a high price, and it is absurd to suppose an artist will make a window for less than a painting, or will devote his time to an art which is not, as yet, fully appreciated in highest manifestation.

The two windows illustrated were designed by Miss Violet Oakley, and all the painted portions are the direct work of her brush. The themes portrayed are Shakespearian, the first being from the Tempest: Act I., Scene II.—Ferdinand listening to the song of the invisible Ariel—

Fer. Where should this music be? i' the air or the earth?
It sounds no more: and, sure, it waits upon
Some god o' the island. Sitting on a bank,
Weeping again the king my father's wreck,
This music crept by me upon the waters,
Allaying both their fury and my passion
With its sweet air: thence I have follow'd it,
Or it hath drawn me rather. But 'tis gone.
No, it begins again.

with Prospero and Miranda in the background, the latter exclaiming:

Mir. What is't? a spirit?
Lord, how it looks about! Believe me, sir,
It carries a brave form. But 'tis a spirit.
Pros. No, wench; it eats and sleeps and hath such senses
As we have, such. This gallant which thou seest
Was in the wreck; and, but he's something stain'd
With grief that's beauty's canker, thou mightst call him
A goodly person: he hath lost his fellows
And strays about to find 'em.
Mir. I might call him
A thing divine, for nothing natural
I ever saw so noble.

The second window is from Hamlet, that memorable scene in Act III., where the guilty King and Queen flee, after witnessing the tragic catastrophe of the play, which Hamlet caused to be acted before them, in order to "catch the conscience of the King."

Ham. He poisons him i' the garden for his estate.
His name's Gonzago: the story is extant, and written in very choice Italian: you shall see anon how the murderer gets the love of Gonzago's wife.

The composition of these windows is all that could be desired; the dramatic situation illustrated has been handled in a most masterly and decorative manner, which at once commends itself to the connoisseur, while the arrangement of the accessory ornamentations cannot help but receive a like commendation from the decorator. The color beauty of the windows is indescribable; so subtle is the scheme of coloration, to be understood it must be seen. Every piece of glass has been carefully selected, not only for its color but for its motion; every lead line has been given a thoughtful consideration; and every part has been governed by a strict adherence to a pure mosaic motive; while the glass painting is indeed glass painting and not an imitation of painting on canvas. The very faults in drawing, which are apparent here and there, but add another

beauty, and, in a way, emphasize the decorative character of the windows.

Surely the day of domestic glass, having an artistic value, has not passed away, as long as there are artists of Miss Oakley's genius to design and paint windows, and associations of artists and craftsmen to construct and interpret in glass the artist's thoughts, for these beautiful windows cannot help to call forth orders from cultivated people, so that Miss Oakley and other artists may be induced to adventure into the field of domestic colored glass work.

C. C.

UNIVERSITY SCHOLARSHIPS OF THE ARCHITECTURAL LEAGUE OF AMERICA FOR 1908-1909

Harvard University offers to members of the Architectural League of America three scholarships in architecture. These scholarships are divided into two classes—Class A. One scholarship which is restricted to those who can pass the entrance examinations of Harvard College. Class B. Two scholarships for special students for which there is no examination, but a competition in architectural design to select the holders.

Class. A. This scholarship to regular students is for one year with the possibility of reappointment for a second year, conditioned upon the record of the students made at the University. In order to pass the examination candidates should be graduates of a good high school or have an equivalent preparation. In June Harvard University holds examinations for admission in the principal cities of this country. The entrance examinations for this year are held from June 22d to June 27th inclusive. These regular entrance examinations will be taken by Class A candidates and the scholarships will be awarded to the student who passes with the highest standing. For a list of the subjects of the examination, the places of same for this year, and for other information regarding admission to Harvard College write for pamphlet to Mr. J. G. Hart, Secretary, Cambridge, Mass. This officer will, upon request, also send copies of recent examination papers. Each club secretary will also have a copy of the above pamphlet regarding admission. Applications for such examinations should be sent to that officer of Harvard University by April 1st, and by this date the Chairman of the Department of Architecture, Harvard University, should receive applications for the scholarship, such application being approved by the Secretary of the Architectural Club of which the applicants are members, and applications from individual members being approved by the permanent secretary. Candidates for the above scholarship would do well to review carefully those subjects in which they are to be examined.

Class B. Two scholarships for special students, each for one year, will be awarded upon the result of a competition in architectural design, on a program prepared by the Architectural Department of Harvard University. The competition in the various cities will be conducted by the League through the organizations affiliated with it, and will be judged by the Professor of Architecture of Harvard University and a Boston architect selected by the League. Provision will be made for individual members of the League.

Candidates for the above should notify the Chairman of the Committee on University Scholarships by April 1st of their intention to take part in the competition. This competition will be opened by a preliminary sketch to be made on Saturday, May 2d. One week will be allowed for making the final drawings. Directions regarding the conditions under which these drawings are to be made, their size and manner of sending them will be issued later. These scholarships entitle their holders to free tuition in Harvard University during the periods stated above, the cost of such tuition otherwise being $150 per year.

It is hoped that a large number of men will avail themselves of the splendid opportunity presented by the above. Further information may be had from the Chairman.

The Architectural League of America also has a foreign traveling scholarship, for information regarding which apply to Professor Percy Ash, Chairman, Committee on Traveling Scholarship, George Washington University, Washington, D. C.

A COMPETITION FOR LOW-COST DWELLING HOUSES

It is proposed to erect at East Walpole, Mass., in connection with the F. W. Bird & Son's paper mills, a group of low-cost one-family cottages, similar in construction to experiments which the Bird concern has already made with its products, as an exterior covering. A competition will be conducted for the purpose of selecting designs for such structures, the cost of which is not to exceed three thousand dollars.

The competition will be conducted under rules of the American Institute of Architects.

STAINED GLASS WINDOW, PORTRAYING FERDINAND LISTENING TO THE SONG OF THE INVISIBLE ARIEL.
Tempest: Act I, Scene II.
(Copyright by Violet Oakley, 1907.)

STAINED GLASS WINDOW, SUBJECT: SCENE FROM HAMLET, ACT. III., IN WHICH THE GUILTY KING AND QUEEN FLEE, AFTER WITNESSING THE TRAGIC CATASTROPHE OF THE PLAY WHICH HAMLET CAUSED TO BE ACTED BEFORE THEM.

(Copyright by Violet Oakley, 1907.)

Professor Francis W. Chandler, of the Massachusetts Institute of Technology at Boston, Mass., will receive competitive drawings on or before April 1, 1908, in accordance with a program which is being distributed to all architects by F. W. Bird & Son. With Professor Chandler, Mr. Charles Collens, of Allen & Collens, architects, acts as judge in the competition.

BALTIMORE'S ADVANCE

The growth of municipal improvement ideals in Baltimore makes a significant chronicle. With the great fire, there was a suddenly awakened wish on the part of the people that the catastrophe might be changed into an opportunity for a better city plan in the burned district. No plan was in readiness; but a hastily appointed local commission did the best it could, proposing the widening and changing of many streets. Its recommendations were carried out. Following this accomplishment, came the engagement of the Olmsteds, through the efforts of the Municipal Art Society, to make a park plan. A very elaborate report, looking far into the future, was outlined. But step by step, and with remarkable progress, these recommendations are being realized. And now has come the wish for a civic centre, such as other cities are developing. Tentative plans were made by local men, and then an expert commission from outside—composed of Messrs. Carrère, Brunner, and Olmsted—was called in to pass upon it. Ground has been selected east of the city hall, and it is proposed to purchase it at once, put it in proper condition, and then group around it the five new public buildings which are going to be needed in the near future. These are an annex to the city hall, a new police headquarters, a new central police station, a state building and a new polytechnic institute. Each building will have to be financed separately when its turn comes, just as it would have to be whatever its location; but this plan makes possible a grouping and a cumulative effect. As a recent court decision has considerably increased the revenues of the park board, which are mainly derived from a street railroad tax, it is proposed that the income shall be used to pay the fixed charges on a big loan, with which the civic centre property and certain property for park extension and a new boulevard can be purchased. The whole makes a remarkable story of advance.

IMPROVING SMALL STATIONS

In regard to the improvement of the buildings and grounds of small stations, by railroad corporations that are not likely to authorize expenditures for sentiment only, Joseph T. Richards is quoted as presenting the railroad's viewpoint in a recent address as follows—the significance of the statement being that the speaker is the general engineer of the Pennsylvania Railroad: "Many years ago," said he, "the managers of the Pennsylvania road were convinced that improvements about suburban stations which could be made on the ground, where there was property surrounding the station, were equally important with the station itself, and, in fact, it has been held by many citizens as well as railroad managers that the station property was of first importance. . . . It was found that the towns with stations having beautiful surroundings were growing more rapidly than others, and in taking up the subject with property owners at the neglected stations, it was mutually agreed that the company and the property owners should co-operate, and wherever there was a disposition on the part of property owners to build houses the railroad would build a station—not necessarily an expensive building, but with attractive surroundings of lawn, shrubbery and flowers, providing a considerable area of ground for the purpose. While all was not done in a year, the policy was continued and the manager of this road has declared that if he could add a half dozen new houses to a town it would pay the interest on $5,000 or $6,000 expended for station purposes, if applied under what we would call civic betterments." This is an interesting and helpful presentation of the economic argument.

IN RE ILLINOIS ATHLETIC ASSOCIATION.

The building which is shown on page 222 of the March issue is not, as it is there stated, of the Chicago Athletic Association, but of the Illinois Athletic Association. The recent addition to the Chicago Athletic Club was published in the February issue of this year.

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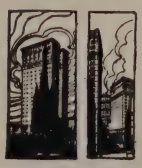

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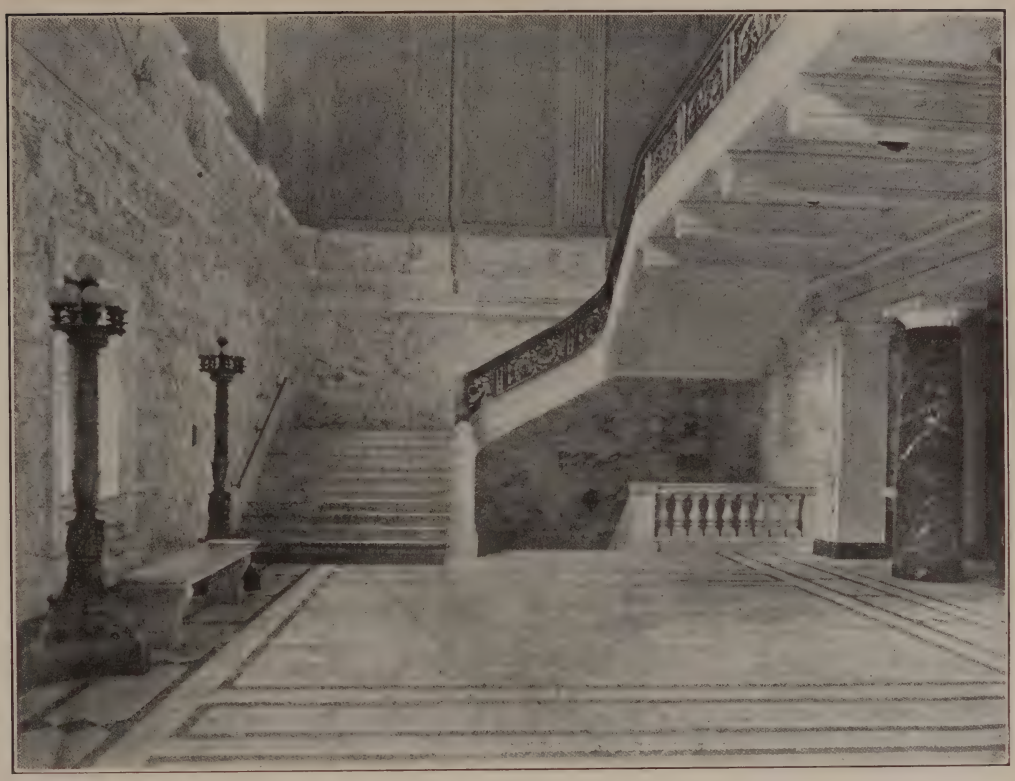

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A DOMESTIC WINDOW—EXECUTED IN THE STUDIOS OF THE CHURCH GLASS AND DECORATING COMPANY OF NEW YORK—Scene from HAMLET.

The
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Vol. XXIII MAY, 1908. No. 5.

The Building of Cincinnati

Cincinnati is both fortunately placed and fortunately named. It may well have seemed to the first man who looked upon its site with a speculative eye, the predestinated seat of a great city. It did seem so to, very likely, the first observer of that kind, no other than the "Cincinnatus of the West," as Byron calls him. For it was no other than George Washington who, in his explorations of the Ohio, saw "Round Bottom" and quite possibly foresaw something like Cincinnati, so far as any human prevision of imagination could at that time have foreseen the expansion of the West. Curious, even as this sketch is begun, the newspapers tell us that the "pre-emption" of the Pater Patriae is about to be brought into court with some other of his speculative purchases in the Ohio Valley by his surviving legal representatives. As a speculator in real estate it may be said of Washington as in politics it was said of Burke, that he was "wise too soon." He saw too far ahead to "realize" during his lifetime. The "carrying charges" of his investments in the Valley of the Ohio, even of such of them as came to him in the form of military bounties, would have been more than he could bear, but for that lucky Custis marriage with which his Virginia neighbor twitted him, the Custis marriage, with its consequences in the location of the Federal City on the banks of the Potomac, where it would so inevitably enhance the value of the Custis estate. It was well for Washington that this latter enterprise in "promotion and development" ran its course before the advent of a free and fearless press. Otherwise to what disclosures and denunciations would such a press have treated "Boss George" and his "real estate deal." None of his other operations in land, however, was so farsighted as this one at Round Bottom, or could have been, unless, indeed, it had occurred to him to invest at "Fort Duquesne" and wait to see what would happen to it after it had been renamed for William Pitt.

Meanwhile the place, of which the original name was "Losantiville," may be said to have been named after the greatest of the Cincinnatians. The fort that preceded or accompanied the original settlement was certainly so named. There is, however, no proof that he ever set foot on the site of Cincinnati. Although the fort that was built upon it was named after him, about the location of that fort hangs a local legend. The legend is that original settlement and army post were at North Bend, sixteen miles away. The Lotharian commanding officer of the post had cast lawless eyes upon the wife of a farmer, and to escape his unwelcome attentions, unwelcome, at least to the husbandman, the husbandman shifted his settlement to where Cincinnati now stands. Not thus to be balked, the military Lotharian discovered good professional reasons for shifting also the site of the fort. Hence "Fort Washington"; hence, perhaps, ultimately Cincinnati. It is not the most dignified genesis of a great city, but there are others as queer or queerer. A

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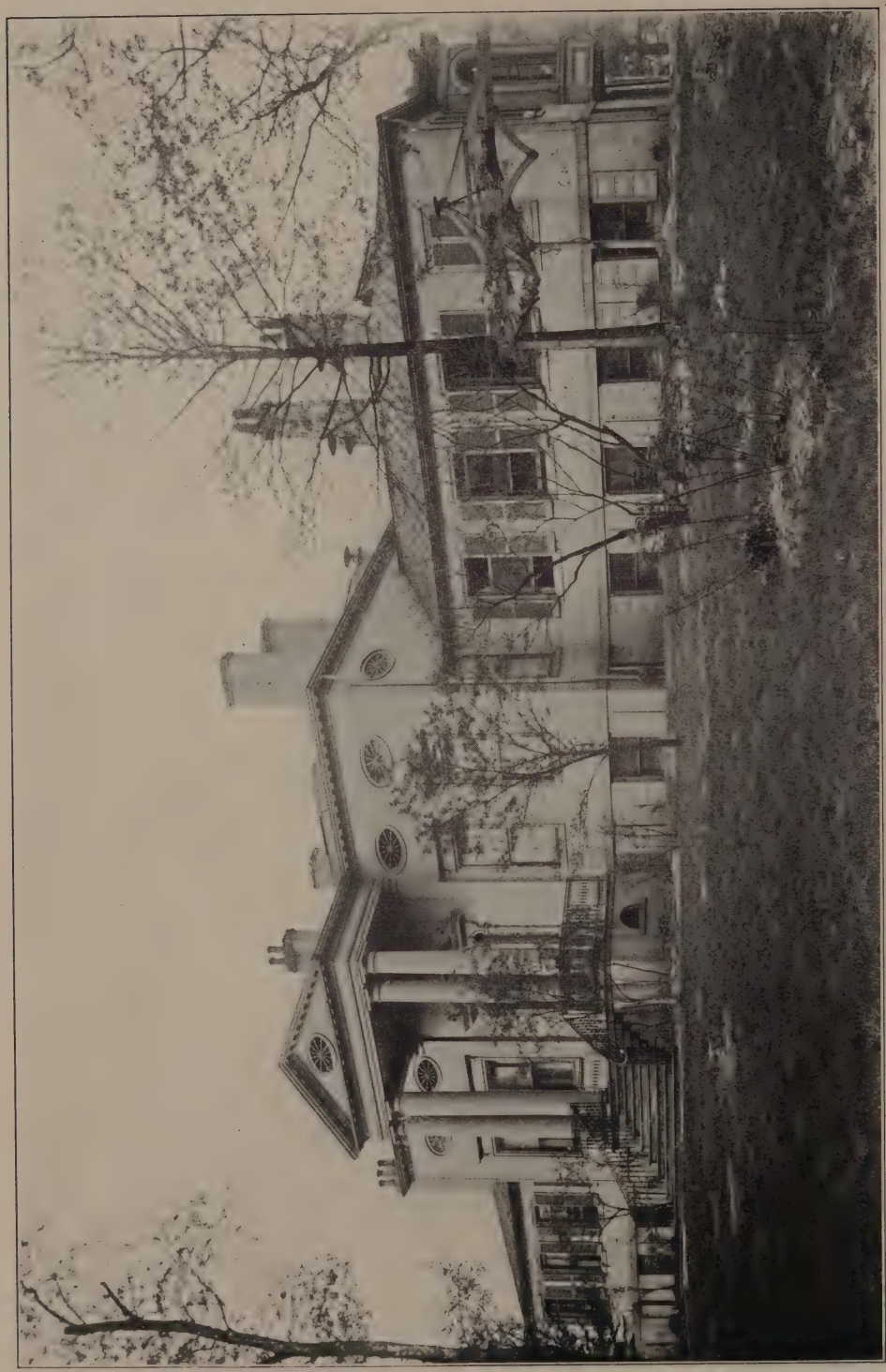


NO. 1.—THE BAUM HOUSE (1817). Benjamin H. Latrobe, Architect.

Cincinnati, Ohio.

monument in the city, built of stone, but in imitation of a blockhouse, bears a bronze tablet setting forth that it occupies what was the centre of the stockade about the fort. There is a dearth, as in American settlements is apt to be the case, either of documents or of tradition, about the actual origin of the place, and no evidence that I have been able to come upon that among the actual founders were any of the retired Revolutionary officers who had beaten their swords into plough shares, whether actual members of the Society of the Cincinnati or not. But the name nevertheless would serve at least to date the settlement pretty nearly, as within the last two decades of the eighteenth century, and it sufficiently appears that the earliest settlers were Jerseymen and the earliest settlement in 1788, making it thus the earliest on the "beautiful river" unless Pittsburg at its source be older. Pittsburg to be sure was incorporated as a village in 1794, but not as a city until 1816, whereas the municipal corporation of Cincinnati dates from 1814. Be that as it may, as the country back of it was opened up to settlement, Cincinnati throve and increased. It must have had its twenty odd thousands in 1827, when poor Mrs. Trollope was tempted to set up a "fancy store" in it and, failing utterly, took her revenge by writing the "Domestic Manners of the Americans." Doubtless the Cincinnatians of the third decade of the nineteenth century were a rough lot, and the impression they made on the authoress was such as they were bound to make on an English lady. One who now candidly rereads the "Domestic Manners of the Americans" finds

NO. 2.—JEWISH TEMPLE.

Cincinnati, Ohio. James K. Wilson, Architect.

no warrant for taxing the authoress with unkindness. But candid American readers for a British book on America were eighty years ago almost impossible to find. American readers were too provincial and too skinless to be fair. On the other hand, our succeeding British censor, whose "American Notes" raised a storm of objurgation to which the reception of the "Domestic Manners" was a zephyr, Charles Dickens, to wit, who visited Cincinnati some fifteen years after Mrs. Trollope had shaken its mud from her substantial British bottines, Charles Dickens, in 1842, had something to say about Cincinnati which ought to have been balm to its green wounds and its bloody coxcomb. Here is the passage, from the "American Notes":

Cincinnati is a beautiful city; cheerful, thriving, and animated. I have not often seen a place that commends itself so favorably and pleasantly to a stranger at the first glance as this does: with its clean houses of red and white, its well-paved roads and footways of bright tile. Nor does it become less prepossessing on a closer acquaintance. The streets are broad and airy, the shops extremely good, the private residences remarkable for their elegance and neatness. There is something of invention and fancy in the varying styles of these latter erections, which, after the dull company of the steamboat, is perfectly delightful as conveying an assurance that there are such qualities still in existence. The disposition to ornament these pretty villas and render them attractive, leads to the culture of trees and flowers, and the laying-out of well-kept gardens, the sight of which, to those who walk about the streets is inexpressibly re-

NO. 3.—K. K. BENE ISRAEL TEMPLE, AVONDALE.
Cincinnati, Ohio. Tietig & Lee, Architects.

freshing and agreeable. I was quite charmed with the appearance of the town, and its adjoining suburb of Mount Auburn; from which the city, lying in an amphitheatre of hills, forms a picture of remarkable beauty, and is seen to great advantage. . . . The society with which I mingled was intelligent, courteous, and agreeable. The inhabitants of Cincinnati are proud of their city, as one of the most interesting in America; and with good reason; for beautiful and thriving as it is now, and containing as it does a population of fifty thousand souls, but two and fifty years have passed away since the ground on which it stands (bought at that time for a few dollars) was a wild wood, and its citizens were but a handful of dwellers in scattered log huts upon the river's shore.

This is a very different picture, in 1842, from poor Mrs. Trollope's presentation of the whiskey-guzzling, tobacco-ruminant Cincinnatians of 1827. Much, doubtless, depends upon the point of view. Dickens was not a disappointed shopkeeper, but a picturesque tourist. But much also must be ascribed to a real change in the subject of the picture. The crudities had ripened. But there is at least one piece of evidence that in the Cincinnati of 1827 there was a refinement incompatible with the notion that the "Domestic Manners" the English critic depicted were all-pervading. just as the architectural relics of colonial Annapolis or colonial Charleston

NO. 4.—SOLDIERS' AND SAILORS' MEMORIAL HALL.
Cincinnati, Ohio. Hannaford & Sons, Architects.

tell unmistakably the story of the social amenities of those who inhabited them that story is told by the house which Martin Baum built in Cincinnati in 1817, and for which he was well inspired to choose for his architect Benjamin H. Latrobe, then fulfilling the last year of his service as architect of the Capitol at Washington (Illustration No. 1). It is quite unmistakably Latrobe's, to those who know the work that he was doing in Baltimore and elsewhere in those years, and who remember his insistence, in design as well as in words, upon "simplicity" as the first of architectural qualities. It was this preference that induced him to revert from the Renaissance to the models of classical Athenian antiquity as soon as he was able to do so, and long before any other American architect had done so as to anticipate the Greek revival which did not really set in as a fashion for some years after his death. The Baum house (the Taft house, as it now is, the Longworth house as it has been modernly known in Cincinnati) exemplifies this preference. It has the air, it will be seen, of a country seat, rather than of a town house, recalling the "seats" of the Virginian and Maryland magnates of its period in its lateral extension and in its vertical restriction, as well as in the amplitude of its grounds. It might very well have been the abode of the original "Cincinnatus of the West" if he had chosen the banks of the Ohio instead of those of the Potomac. It has in fact the air of having been built for

NO. 6.—MUSIC HALL.

Cincinnati, Ohio. Hannaford & Sons, Architects.

NO. 7.—CHAMBER OF COMMERCE.

Cincinnati, Ohio. H. H. Richardson, Architect.

the "Patroon" of Cincinnati, which in virtue of his acquisition of land Washington virtually was. The reduction of the portico to a porch shows a willingness to sacrifice to practicality, of which the results are architecturally rather unfortunate. A tetrastyle "order" seems to be indicated, or if not that, a distyle of much less attenuated columns, even with pedestals, if necessary to bring them into classical proportions. On the other hand, the sacrifice of classicality to practicality in the attic of the central block, attic apparently required for servants' quarters or other subordinate uses and lighted from its own "ox-eyes," ignoring the requirement of some dividing member between it and its substructure, is architecturally effective, waiving convention and precedent, which Latrobe always

NO. 8.—Y. M. C. A. BUILDING.

Cincinnati, Ohio. James W. McLaughlin, Architect.

NO. 9.—SINTON HOTEL.

Cincinnati, Ohio. Frank M. Andrews, Architect.

took a pleasure in waiving, provided there was anything to be gained by the waiver. The central block is signalized, the "composition" is attained. It is only a pity that the porch should be so excrescential.

NO. 10.—CITIZENS' NATIONAL BANK.

Cincinnati, Ohio. Hannaford & Sons, Architects.

There are other things in Cincinnati of those politically formative but architecturally still colonial years, though none so interesting as this relic. The next manifestations of an interest in architecture were those of the Greek revival, now become a fashion, and the most noteworthy of them were contributed by that zealous and busy Greek revivalist Isaiah Rogers, who made the home of his maturity in Cincinnati, and died there in 1869. His specialties, one may say, were porticoed or colonnaded public buildings and hotels of solid granite. These marked his career westward from Boston, where the Custom House, done in collaboration with the Government Architect, Ammi B. Young, stands for an example of one and the Tremont House stood, until it was supplanted by a skyscraper as an example of the other, through New York, which

NO. 11.—TRACTION BUILDING.

Cincinnati, Ohio. D. H. Burnham & Co., Architects.

NO. 12.—INGALLS BUILDING.

Cincinnati, Ohio. Elzner & Anderson, Architects.

NO. 13.—TEXTILE BUILDING.

Cincinnati, Ohio. Gustav W. Drach, Architect.

he endowed with the old Custom House in Wall Street, and the Astor House in Broadway, to Cincinnati, where in one genre he remodeled the Court House and in the other built the Burnet House. The former was destroyed by a mob in 1884. The latter still stands, though shorn of some of its architectural pretensions by the shifting of the main entrance from one to the other of the bordering streets. On the whole, Cincinnati is less fortunate in relics of this period than New York and Boston, where the works of Rogers still continue to praise him and to hold their own very well in the competition of subsequent fashions. For the architectural history of every American town that counts its century of dura-

NO. 14.—PUGH BUILDING.

Cincinnati, Ohio. Dittoe & Wisenall, Architects.

tion is curiously like the history of every other. Its builders have taken up their styles not out of conviction but as followers of the fashion, and when the fashion gives signs of change, they rush headlong, with an air of devil take the hindmost which is almost equally comic and pathetic, after the new fashion, ready to drop that with equal precipitation when that in turn threatens to be supplanted.

In Cincinnati, as elsewhere, after the Greek revival, the Gothic revival. Cincinnati was rather exceptionally fortunate in its Gothic revival. The "movement" began about as early as elsewhere and lasted rather longer. In addition to producing a number of rational and respectable and attractive buildings, it gave his opportunity to an architect of a talent for which one might without much perversion employ a more pretentious name. One may say so now, since Mr. James K. Wilson has been dead for some years. On the first visit to Cincinnati of the present commentator, a visit which he regrets to have to own is further away now than that of Dickens was then, the attention of the sensitive stranger was at once compelled to certain commercial buildings which were very far from the "regular thing" in the business building of those days. To one who was in the habit of admiring Mr. Leopold Eidlitz's Continental Bank and American Exchange Bank in New York, as refreshing departures from the regular thing there, these Cincinnatian buildings appealed with peculiar force, since they were evidently motived by a like admiration. They were in the same style, which the detail designated as German Gothic, and even in the same material of olive sandstone. They were marked by the same careful proportioning of the stories, the same expanse and

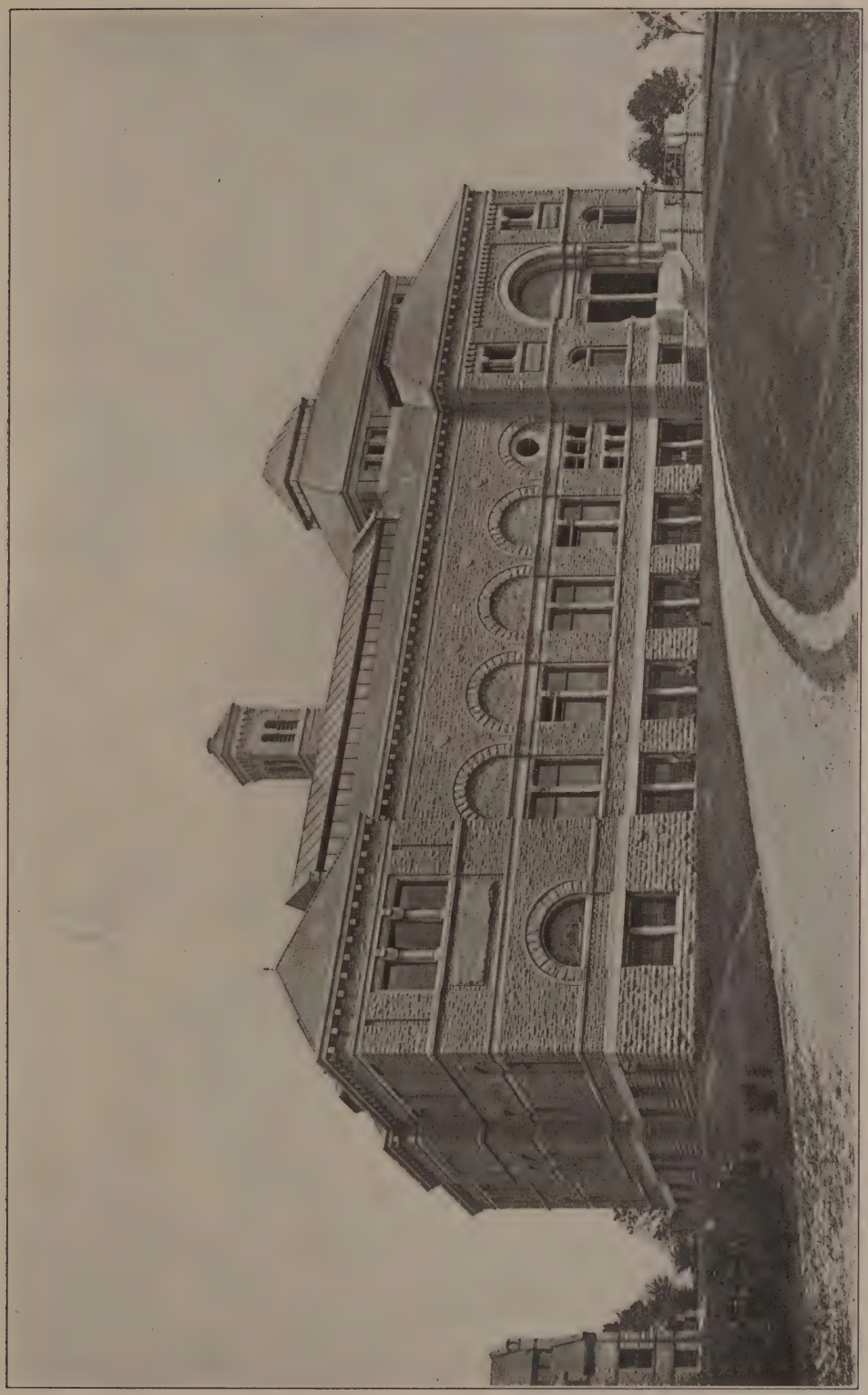
NO. 15.—BALDWIN PIANO FACTORY.

Cincinnati, Ohio. Elzner & Anderson, Architects.

emphasis of the terminal piers, and the same studied grouping of the openings, multiplied in the upper story into an arcade. The detail was as well studied as the composition, and they were in Cincinnati as in New York very welcome objects. No longer visible in either case, the New York examples having long since been superseded by skyscrapers, the Cincinnatian examples demolished or altered beyond recognition. The more the pity in each case, for the Cincinnatian buildings were by no means copies or servile imitations, but had an independent interest. In the business quarter of Cincinnati, the only work of Mr. Wilson's that remains is, I think, the Jewish Temple (No. 2), which, like the Temple Emanu-El in Fifth Avenue, derives its chief architectural interest from the combination of Saracenic and Gothic motives and from the clever adaptation of Oriental detail, although there is little specific resemblance, and although the New York example is, of course, on a much more elaborate and costly scale, as well as of much more artistic importance. The convention that the architecture of a synagogue should be Orientalized has its uses at least in marking the structure for identification. That advantage is put in a clear light when we remark a later synagogue in Cincinnati (No. 3), of which the general architectural scheme and the technical "style" are indistinguishable from those of a Soldiers' and Sailors' Memorial Hall (No. 4). It is not clear why either of these edifices, so diverse in purpose should follow that scheme and that style, nor, if so, which. But it is in the suburbs, as we shall see, that the most characteristic and successful of the remaining works of this Gothic revivalist are to be found.

Nevertheless, the commercial quarter of Cincinnati has its architectural interest. The reservation of "Fountain Square" was such a tribute to private munificence, the munificence of Mr. Probasco, whose gift to the city the fountain was, as hardly any other American municipality had the grace to make at that time. Such a tribute is not so common even now. Cincinnati gets the benefit of it in the enhanced effectiveness not only of the sculptural monument itself, but of all the surrounding buildings. The only one of the surrounding buildings in which full advantage has been taken of the detachment is the Carew building, which very suitably furnishes a background for the fountain and terminates the vista of the oasis, page 386. Another relic of the Victorian Gothic revival is the Music Hall (No. 6), which suffers much from the lack of some such detachment and foreground as a like reservation with that of Fountain Square would have supplied to it. It is forced forward to the sidewalk, so that it is difficult to get the general view for which it was designed. It can be dated with considerable confidence, from its own architectural evidence, as one of the buildings which were inspired, on both sides of the Atlantic, by Sir Gilbert Scott's essay in secular Gothic in the Midland Station in London. It is a real composition, and is highly commendable for its comparative quietude in a style in which it seems from so many extant examples that keeping quiet was the most difficult thing for a designer to do.

Like every other American town, Cincinnati, after its little futile dalliance with "Queen Anne," submitted to its phase of Richardsonian Romanesque as the next stage of its architectural evolution. To call it evolution were, of course, to insult the memory of Darwin, since evolution implies a direction and a progress, which things are incompatible with jumping from one fashion to another without visible motive. We can no more call such changes of fashion evolutionary in architecture than in millinery. But at least Cincinnati was very lucky in its chief example of the Richardsonian Romanesque. It had the advantage of having it done by Richardson himself, and the Cincinnati Chamber of Commerce (No. 7) is one of the most characteristic and most creditable of his works. It is a most instructive example of his talent for simplification. A big, light room, with the substructure and the superstructure obviously subordinate and dependent, that was the conception that he wrought out in his vigorous, masculine way, so



Cincinnati, Ohio NO. 16.—ART MUSEUM, EDEN PARK. James W. McLaughlin, Architect.

NO. 18.—BRANCH LIBRARY, WALNUT HILLS.
Cincinnati, Ohio. McLaughlin & Gilmore, Architects.

NO. 17.—DEUTSCHES ALTENHEIM.
Cincinnati, Ohio. James W. McLaughlin, Architect.

NO. 19.—FIRST CHURCH OF THE NEW JERUSALEM.
Cincinnati, Ohio. Elzner & Anderson, Architects.

NO. 20.—AVONDALE PRESBYTERIAN CHURCH.
Cincinnati, Ohio. Elzner & Anderson, Architects.

that the wayfaring man cannot possibly err therein. It might have been even more effective if practical considerations had allowed him to dispense with the subordinate story or in fact double story above the great hall, and to set his parapet-story and his dormers directly above the chamber which is in effect the building. But it is immensely effective as it is, and much is sacrificed to the simplicity of the scheme. How many architects would have had the courage to make nothing, in such a building, of the entrance, which is here but one opening of many, and hardly signalized at all in treatment above its fellows, by no means allowed to assert itself to the extent of coming into any competition with the tall arcades, enclosed between their solid flanking turrets, of which the expanse and the solidity are so skilfully emphasized by the treatment. And how simplifying and unifying the great wedge of roof, which the jutting dormers relieve without weakening. We no longer do Provençal Romanesque, it is true, and Richardson's technical "style" is obsolete. But his personal style is not obsolete. His constant quest for simplicity and repose, for "Quiet," as he used to roll it out in his orotund way, and his constant insistence on those qualities, have not ceased and will not cease to offer their lessons to his successors, in whatever of the historical styles they may be working, or even though they should come to work in a style that they are to make historical. Meanwhile, the Cincinnati Chamber of Commerce is a most valuable municipal possession.

The Richardsonian fashion passed away, all the same, and was succeeded as elsewhere, leaving in its wake not only the master's piece, which comes so near being his masterpiece, but such moderate and agreeable and unpretentious examples as the building of the Y. M. C. A. (No. 8). First the elevator building with real walls, and then the skeleton of the skyscraper, were destined to succeed it for commercial purposes. As is apt to be the case, the former is architecturally more attractive than the latter. Whatever the fact may be, it is evident that the Sinton Hotel (No. 9) and the Citizens' National Bank (No. 10) are susceptible of construction in actual masonry. The widening of the terminal piers, especially great and especially grateful in the case of the latter building is therefore quite plausible, while it would be at least wasteful in the case of a steel skeleton veneered with masonry. The hotel looks a good deal like a good many others, but the bank has real distinction. When we come, however, upon such an unmistakable example of the skeleton construction as the Traction building (No. 11) we come upon the pretence of a construction which would manifestly be impracticable. Of course, this is a criticism which "runs at large" and is not to be imputed to the designers of these particular buildings, although to the designer of the stereotyped pattern of skyscraper we may apply what was said of the mob of gentlemen who wrote with ease pentameter couplets more or less in the manner of Pope, that one no more admires a man for being able to write them than for being able to write his own name. The Ingalls building (No. 12) is apparently, in the photograph, an exemplification of the same truth. In fact, however, it is constructed of ferro-concrete, veneered with marble and terra-cotta, and is a pioneer in the application of that made of construction to the skyscraper. The unaffected ugliness and bare utilitarianism, for instance, of the Textile building (No. 13), which is plainly and, so to say, avowedly inconstructible in masonry, become rather dignified in comparison with the pretension of the more "architecturesque" skyscrapers, though to be sure, the cornice projecting above the eighth story of the Textile Building is as manifest as it is a futile sacrifice to the graces. One prefers that straightforward cage, the Pugh Building (No. 14) with which the advertisements plastered over its flank are not in the least incongruous. But a much more grateful object than any of these skyscrapers is the Baldwin Factory (No. 15), which carries no ornament that can be said to be incongruous with its utilitarian purpose, and yet the design of which, it is quite evident, has received successful architectural consider-

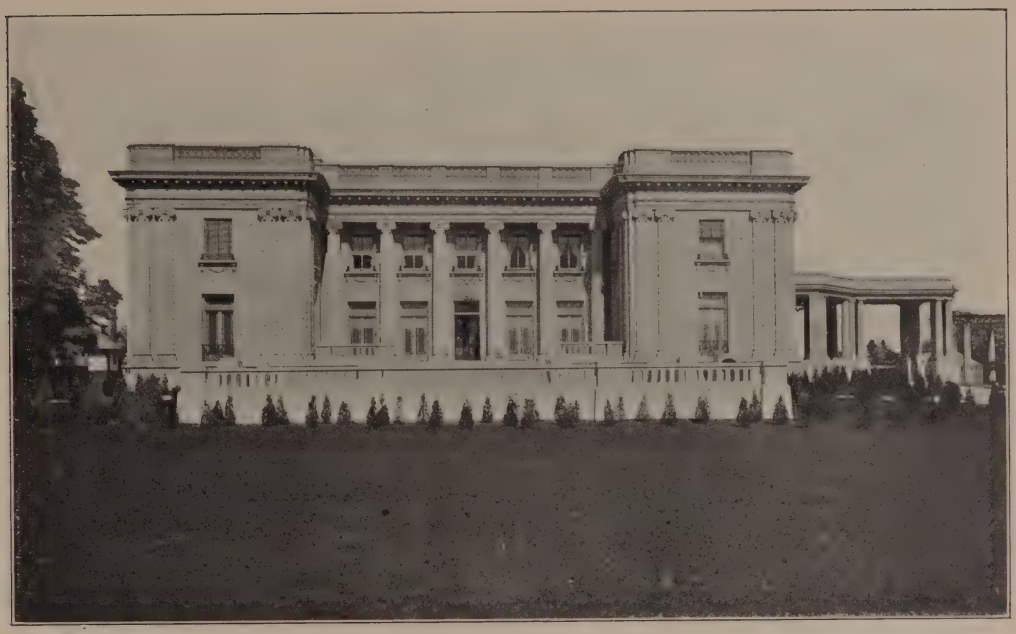
NO. 21.—DEXTER CHAPEL, SPRING GROVE CEMETERY.
Cincinnati, Ohio. James K. Wilson, Architect.

ation. After the skeletons, the wearied eye reposes upon it with much satisfaction.

But it is not in the city proper that one is to look for the most attractive building of Cincinnati. Now, as in Dickens's time, it is the "amphitheatre of hills" that makes the charm of the city, a charm that, I think, no other American city precisely possesses in the same degree. The upper of the two terraces on which the city proper is built swings around it to form this amphitheatre, and indicates itself as a ring of suburbs. Already in Dickens's time, as we have seen, the opportunity had been sufficiently improved to attract his admiration. But with the outward expansion of Cincinnati it has been improved much more thoroughly and extensively. Now there is scarcely a city, even Boston, of which the suburbs are so important to the general effect. One has not seen Cincinnati until, like the Psalmist in Zion, he has gone around about her, marked well her bulwarks and considered her palaces. It is in the ring of suburbs that the best not only of the

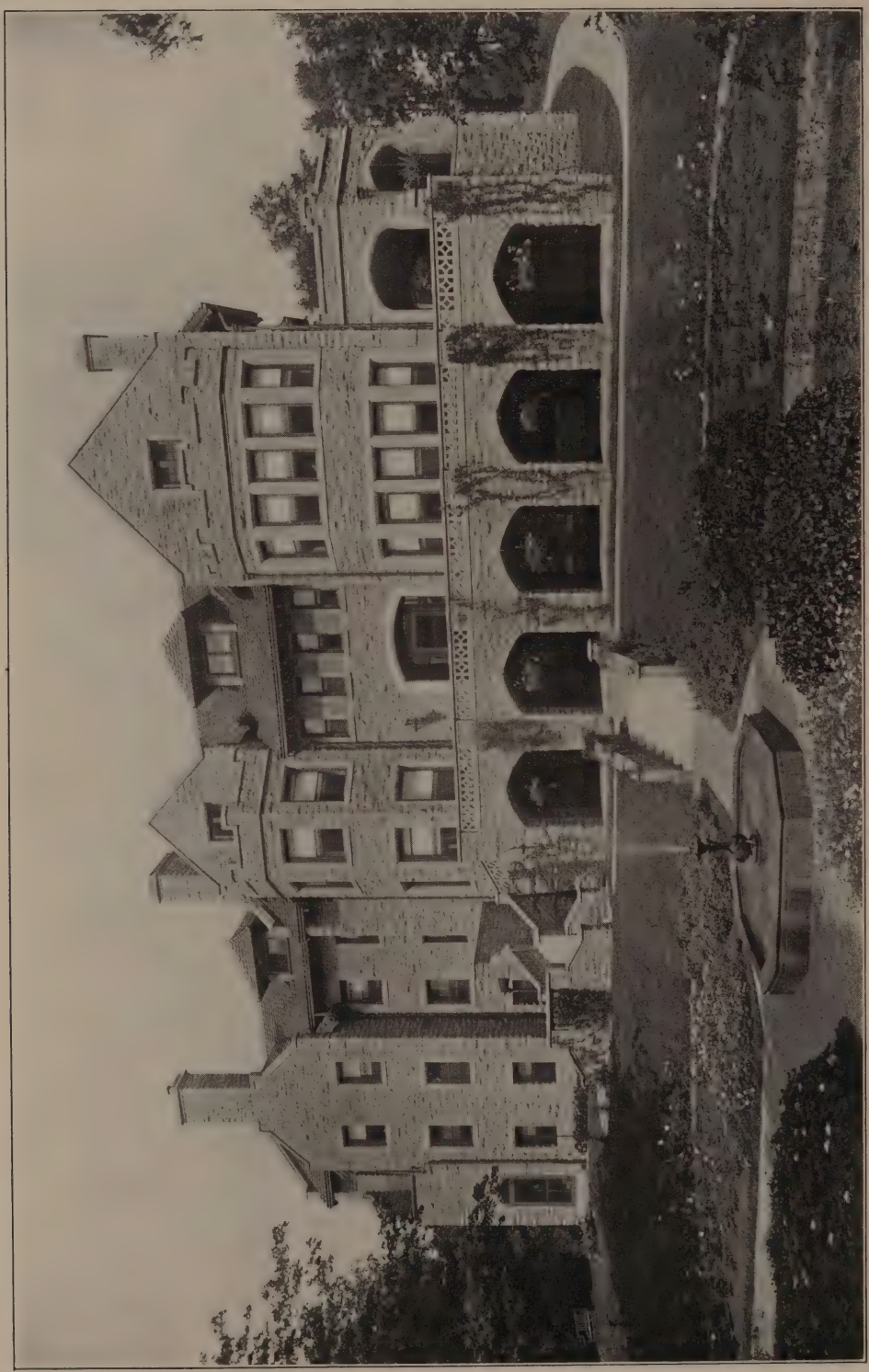
NO. 22.—SCHOENBERGER RESIDENCE, CLIFTON.

Cincinnati, Ohio. James K. Wilson, Architect.



NO. 24.—PETER G. THOMPSON RESIDENCE ON COLLEGE HILL.
Cincinnati, Ohio. James Gamble Rogers, Architect.

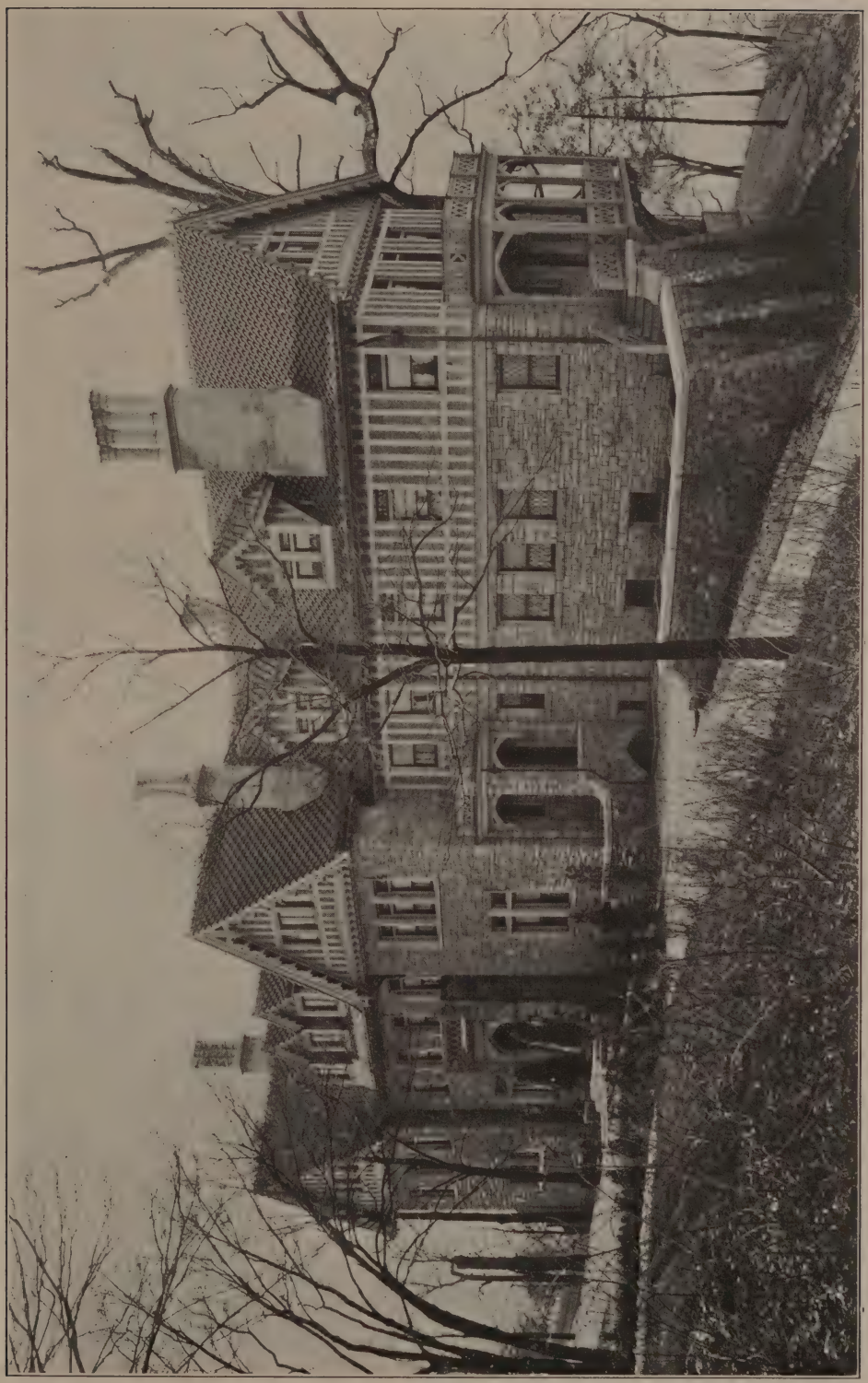
NO. 23.—FRANK PERIN RESIDENCE, CLIFTON.
Cincinnati, Ohio. James W. McLaughlin, Architect.



NO. 25.—RESIDENCE OF MISS HANNA.

Elzner & Anderson, Architects.

Cincinnati, Ohio.



Cincinnati, Ohio. NO. 26.—RESIDENCE OF MR. L. A. AULT. Elzner & Anderson, Architects.

NO. 27.—RESIDENCE OF MR. GEO. HOADLEY, JR.
Cincinnati, Ohio. Elzner & Anderson, Architects.

NO. 28.—HAZEN RESIDENCE, AVONDALE.
Cincinnati, Ohio. Werner & Adkins, Architects.

NO. 29.—RESIDENCE OF MRS. HUGH SMYTHE.
Cincinnati, Ohio. Elzner & Anderson, Architects.

NO. 30.—RESIDENCE OF MR. C. W. BELL.
Cincinnati, Ohio. Elzner & Anderson, Architects.

domestic building but of the church building and even of the institutional building, of all, in fact, except of the strictly commercial building is to be sought and found. Not, as a rule, "palaces," but of a more appropriate suburbanity, the "villas" and the "well-kept gardens" of 1842, but far better done as well as far more numerous. Even the churches, one notes with pleasure, even the "institutions" paretake of this character of suburbanity. One may be allowed to hold the opinion that the Museum in Eden Park (No. 16) is a more appropriate edifice for its site and function than it would be if it were built just now and submitted to the rigid symmetry and the pompous ornamentation of the present fashion, while the "comfortable bourgeoisie" of the Deutsches Altenheim (No. 17) as well as the recall of the German Renaissance in its treatment, will be recognized as eminently suitable. The best of the churches also, such a studiously unpretentious and picturesque group as that of Church of the New Jerusalem (No. 19), have a character not only suburban but rural, and hark back to the prototype of a country parish church in England. A very much more elaborated Gothic is seen in the mortuary chapel in Spring Grove, one of the most noteworthy of the works of Mr. James K. Wilson (No. 21). Unfortunately it lacks the logic of its original in an important point. A vault the thrust of which the actual flying buttresses would really abut is inconceivable. But if we waive that infelicity, what specimen have we in America of as highly developed or as ornate Gothic in miniature which is more successful than this? It is a gem in its kind. The kind, indeed, is one of which we have few successful examples. The late Mr. R. M. Upjohn's gates of Greenwood is the only other one which occurs to me at the moment, and a very successful example it doubtless is. But it will be agreed that the Cincinnatian example loses nothing in comparison with that in Brooklyn. nay, that it loses nothing by comparison with any of the works in its own kind of the revived Gothic in Victorian England.

NO. 31.—DREWEY RESIDENCE.

Cincinnati, Ohio. Elzner & Anderson, Architects.

An equally successful piece of Gothic in quite another kind, by the same artist, is the Shoenberger house at Clifton (No.

22). And here an equal success means a superior achievement, seeing that the dwelling is at once so much more difficult and so much less precedented than the memorial chapel. There are a hundred Gothic precedents for the Dexter Chapel, from the Sainte Chapelle downwards. Even to reproduce one of them, even to reproduce one of them as nearly as Sir Gilbert Scott reproduced the Sainte Chapelle in the Exeter college chapel, Anglicizing it in the reproduction, requires, it is true, a nice feeling for detail and a nice sense of scale. If the result be successful, it is a "scholarly" piece of architecture. And the Dexter chapel is all the more a scholarly and academic success because it has not (at least to the present reviewer's knowledge, it has not) any single and particular prototype, any specific "model." But there is, there can be, no particular preedent for a country house set on a hill, as in this instance, so as to command the vista of the valley below, and in L'Enfant's excellent phrase, "to preserve reciprocity of sight" between itself and the most interesting points of the landscape. The problem, in fact, puts the designer on his own resources and enforces upon him an original composition, by the overwhelming improbability that he can find a composition ready made that will fit his conditions. This is a very different problem from a street front or even from a single aisled Gothic chapel which in its composition is so abundantly precedented; and it is correspondingly more arduous. It is not much in the way of the architecture fashionable to-day, the training of whose practitioners furnishes them with very few facilities for solving it, and who, we may assume, would accordingly evade it. But they must agree that, in the Shoenberger house of a generation standing it has been met and overcome, and they cannot withhold his meed of applause from the architect who solved it so successfully. Some of the same praise is due to the animated picturesqueness of the Perin residence in the same suburb of Clifton (No. 23).

There is one "palatial" exception to the rule that the domestic building of Cincinnati is not palatial, one example of a "villa" in the Italian sense as well as in the Italian style. This is the Thompson residence on College Hill (No. 24). This is much more in the regular way of the most modern of our palatial country seats. It has even, along with an abundance of foreign precedents, one specific precedent, if not prototype, on this side of the Atlantic, in the garden front of the late Richard Morris Hunt's design for the "Marble House" in Newport. This it follows in the scheme of a recessed centre about equal in extent to that of the two flanking and projecting wings, in the concealed and balustraded roof, in the classic style and even in the material. If we take this, which probably we have no authority for doing, as a re-study of that, we shall have to give the palm to the Western example, to admit that the later artist has been the more successful, whether more happily inspired, or, which for the spectator comes to the same thing, luckier in his practical conditions. There cannot be much question that the changes are all improvements. It was an improvement to double the pilasters at the angles of the wings and to leave out the intermediate pilaster of what we are assuming as the "original" substituting in each story a single central opening for the two openings. It was an improvement to increase from four to five the openings of the recessed centre, so as to enable the construction of a hexastyle instead of a pentastyle order, and it was an improvement to substitute the engaged Ionic columns for the Corinthian pilasters. Given the classic scheme the architect of the Cincinnati house is to be congratulated on the scholarly and exemplary execution of the same. One must be rather a fanatical romanticist to prefer to this garden front that of the Hanna residence, for example, though not to maintain that this latter would be more eligible than the other if it were as well done. But, on the other hand, romanticism is again vindicated by the appropriateness, for a house overlooking and, indeed, "beetling" over the river from a cliff, of the design of the Ault residence (No. 26). Between this and the clas-

sic garden front we may admit that the question is one of that taste about which there is no disputing.

Of course the prototypes of the residential building of Cincinnati and its suburbs are no more than those of any other American city, confined to the Gothic and the classic. There is the "Italian villa" according to the more usual and less accurate American acceptation of the term than that which applies to so costly and pretentious an example of the real thing at the garden front of the Thompson residence, an acceptation in which the pretension reaches no further than the making of a sensible and comfortable abode. This version lends itself with special facility to walls covered with stucco, or to the newer fangled construction in solid concrete, in either of which, indeed, the square belvidera and the absence of mouldings are apt to be the only remaining badges of the style. A successful Cincinnatian example is the Hoadly house in the Grandin road (No. 27). The château of the French Renaissance in a reduced state has furnished another type which has been found eligible. Though involving much more of elaboration than the Americanized villa and a negotiable example of this is shown in the Hazen house at Avondale (No. 28), though the purist might wish that the architect had chosen some other and more congruous form of gate-post than the square brick pier surmounted with a stone ball which he has been accustomed to identify with the British Hanoverian from Queen Anne to the last of the Georges. But, as usual in domestic architecture, one turns with particular interest to the vernacular work which does not profess adherence to any historical style, nor propose to itself any particular prototype, to the house which is straightforwardly made out of its own elements and requirements, which is of no style and which yet has style. Such a house is the pretty and unpretending bungalow (if we must find a type for it) (No. 29), with its lower story of brick and its upper of plaster, with its spreading roof of tile and its verandah on the side that commands the view. All traditional architecture is abandoned or forgotten, as completely as if the builder had never heard of it. But his work is none the worse for that, and is, perhaps, all the more exemplary.

Reverting to the "regular thing" one naturally finds in frequency examples of the Colonial, of which we have space for but one or two. No. 30 is designated as Colonial, indeed, only by the projected and pedimented porte-cochère. Without that, it would be as nondescript as our last example, merely a comfortable mansion, without the successful study of composition and adjustment of detail that go to make the other nondescript a work of architectural art. And the porch, which is the only "architecturesque" feature is unfortunately here as excrescential as in the really Colonial house with which we began. It has, to be sure, a reason for being, in that it is a porte-cochère, and its restriction has a practical usefulness in reducing to the minimum the darkening of the windows which is the practical objection to the application of the classic portico to a modern dwelling. But upon the whole it seems that the house would be better if the porch were away, and there were substituted for it a shelter which merely enclosed the front door, in which case, it is true, we should probably not be talking about the house at all. No. 31, on the other hand, is a very favorable example. By its treatment and its appropriateness to its surroundings it tends to justify the choice of its style. Here the portico really "belongs," and is successfully incorporated into the rectangular mansion the baldness of which it successfully relieves, without overpowering it, while the harmless necessary porte-cochère is kept in its place, and duly subordinated. One could not well find a better model for a mansion of this size and kind than the Colonial. Given a scale and surroundings which suggest and justify a "seat," and it is as much in place at the beginning of the twentieth century as it was at the beginning of the nineteenth, and on the banks of the Ohio as on those of the Charles, the Hudson, the Potomac, or the Ashley.

Montgomery Schuyler.

The Ecole Des Beaux Arts: What Its Architectural Teaching Means

The poor Ecole des Beaux Arts has been the cause of a great deal of writing in America in the past few years. Criticisms, complaints, denunciations are heard everywhere. If an architect, too skillful for his competitors, wins a competition, it is the fault of the Ecole. That the Renaissance, happening in the fifteenth and sixteenth centuries, superseded Gothic, which was old and no more in harmony with the new ideas of men of this period, is the fault of the Ecole. That the generation of artists of the three following centuries were so much in error as to keep on in this way, following out the spirit of the Renaissance, is the fault of the Ecole. What difference does it make if these artists did create masterpieces? What difference does it make if they did have no prejudices, and that, though they were nearer the spirit of the thirteenth century than we are, and still had the same skilled workmen (which we have not), they nevertheless broke away from the old forms of their own free will. They were wrong, every one of them—or so it has been decided by the critics, who without a doubt alone have a sane judgment, the true artistic method, and, I hope, the way of using both of them.

Meanwhile the Ecole which is the pretext for all the noise, looks calmly over the river that reflects the Louvre, the water-jet in the courtyard of the Murier springs serenely from its ivy-covered basin, and Poussin and Puget stand calmly oblivious on either side of the entrance gates. Amid these almost cloistral surroundings the students go to spend a few years of a new life, laugh, become enthusiastic and start in every direction to try in many different countries to put into lasting form their aspirations and personal qualities—high, it may be, or vulgar, ingenious or commonplace.

The critics accuse; the Ecole does not answer. Its function is to give to those who ask for it the only thing a school can give—a method of work. It makes no effort to bring people to its classes; it prints no advertisements, no circulars filled with promises. Its purpose is not to defend nor to promulgate any special theories. The right to teach is the right of every one at the Ecole—provided, only, he can obtain a sufficient number of followers. And he may teach what he pleases. A newcomer may open an atelier to teach Oceanian or Romanesque, or be a fanatic in Art Nouveau or Tudor—the Ecole does not object. His pupils have selected him, and are following him because they want him, and only so long as they want him. It is the most liberal organization I know. It was an American who said, some years ago, to one of the professors of the school: "What differentiates your school from those I saw in Italy, in England and in Austria, is its complete liberalism, the way in which a pupil here is treated as a man—as a man who has the right to select his own master, to choose his own artistic way."

Fifty years ago, at the time of the reaction in favor of the Middle Ages, due mostly to the deep researches of Lassus, Viollet le Duc and others, influential people tried to diminish this liberty by creating a regular course in esthetics, with examinations—that is, to impose on all students a certain appreciation of beauty. The professor selected for this chair was Viollet le Duc—whose ideas on modern architecture, while excellent for a few, were very bad for the majority. As the pupils of the Beaux Arts are between twenty and thirty years of age, they are no longer schoolboys; and the most of them have the necessary culture to admire what is worth admiring without being told when to admire. There was a sort of revolution, the Government gave way, and only those who wanted to, took the examination in esthetics. Since

then every course, apart from the scientific and technical courses, is optional—and the student does not have to subscribe blindly to any formulae.

To discuss the methods of the Ecole is, then, a task as endless as the one of the Danaids. The professors are many, and when one dies or retires his place is taken by a younger man with very different ideas. The principles of the Ecole are really those of contemporary French architecture. The professors are nothing more than architects following honestly their profession, with varying success. The only point in common between them is devotion to their art and to their teaching—which is not for them a profession.

As for the pupils, their object in life is not, as my contemporary, Mr. Barney believes,* to obtain the Prix de Rome. It is to become more proficient in their profession. But those who obtain the Prix de Rome (who are said with some disdain to have simply proved that they are past masters in scholastic theories and able to teach them to others) are first of all architects, some of whom have built in France buildings whose perfection of study, care in construction and perfect adaptation to modern needs have made them the types of Nineteenth Century Architecture.

We are too near to give recognition to men like Labrouste, Duc, Coquart or Vaudremer; or, rather, most writers on art have not the necessary clearness of mind to appreciate what makes an architectural work a masterpiece, but are largely influenced by the opinions of other people, which they simply adopt as true. That is of small importance; papers do not prevail against monuments, and artistic criticism is the most ridiculous thing to read fifty years afterward.

That there is a French influence in modern American architecture is true beyond a doubt. The influence does not date back for the last decade, as Mr. Barney has said, but has been apparent for thirty years at least—to say nothing of the first influence, too rapidly checked, which produced the plan of the city of Washington, and inspired some southern buildings.

Mr. Barney seems to wonder that the importation was made without a protest from the general public. "If anyone had attempted to import the railroad system from France, or the banking system, the thing would not have passed so easily. Is it not, then, time to stop and consider?" he asks. Yes, but the importation of French architecture came about because there was a need for it. There would be no point in importing the French railroad system, when the American system, which developed simultaneously with it, is perfectly adjusted to American needs and ideas. But in architecture there is something more in France than in America. The simple fact that it has been brought in without a single protest from the general public, as Mr. Barney recognizes, is proof enough that the general public could not get along without it.

At the same time the United States was importing formal architecture from France, they were borrowing domestic architecture from England—which is a new proof of what is somewhat compulsory, that in these importations a nation goes in different ways to different countries to *bring back what it wants.*

It is remarkable to one who does not satisfy himself with a superficial study of art to see how a power greater than the reason of the individual seems to regulate these transactions—to see how in the Sixteenth century France borrowed from Italy what it needed to rejuvenate its art—and that without abdicating the smallest portion of her national originality; for I do not believe that anyone conversant with these questions can find a similarity between the French Renaissance and the Italian other than in mere detail or ornamentation.

At the origin of every art there is a foreign influence—no art is national from its beginning. I would be ashamed to write so evident a truth if I had had no opportunity to read monthly dissertations in which it seems to be ignored. The Greek architecture was borrowed, the Roman architecture, the Gothic—but that

*See Mr. Barney's article in the November, 1907, issue.

takes nothing from their glory, which is to have assimilated heterogeneous elements and to have wrought them into a harmonious whole.

In my window this winter I had some tulip bulbs from which I was expecting an abundant bloom of flowers with the first March sun. The green stems came up, but when they reached their full development, the buds did not open. Like a poor gardener I had forgotten to let the bulbs stay in the shade to delay their opening and give the roots time to accomplish their work underground, in order that the plant might later on have the necessary strength to bloom. I ask my contemporary not to do as I did. Remember that from having broken too soon the artistic intercourse with Europe, American architects killed Colonial architecture which was so full of promise. They are at work again, accumulating material from France, England and Italy. The assimilation is going on, the bloom cannot be far off—but you must be patient. Fifty years for the formation of an art does not correspond to five years in the life of a man; and he does not show very strong personality when he is but five years old.

And neither Mr. Barney nor I can change these laws, which are deeper than the human will. Nobody imposed French architecture on the United States. It was of their own free will that hundreds of Americans went to Paris and that thousands more took their inspiration from the ideas they brought back. Were all these men fools?

What were they looking for in France? and what did they bring back? Documents* would have answered the purpose —besides which the importation of forms comes as largely from Italy and England as from France. Then it must have been something more. It was composition and design. The methods now in use all over the United States in the universities, by means of which those who have something to say are enabled to say it clearly, are those of the Ecole. It is there that the real French influence is found. The science of design is not all that is requisite to the professional man, but it is essential to him in order to make himself clear. The more important the subject the more is felt the need of design. But even in a cottage, where a little taste, a little common sense, a little originality and a sense of the picturesque are enough to create a charming piece of work, these same qualities, unless accompanied by the science of design, result only in disorder, lack of dignity and in a building which is practically bad.

This quality of clearness—the science of harmonious results necessary to design—where could it be better studied than in France? Where could be found a group of men of equal culture and with the same willingness to give up their time, where could be shown so complete a set of representative buildings as in Paris? There is no modern program that has not there an excellent translation. Other cities have more beautiful work, or a more complete ensemble of monuments of a certain period, but Paris can show types of all periods—which includes the best existing group of modern buildings, theatres, railroad stations, markets, prisons, libraries and museums.

The Ecole develops in an admirable way the study of design, respect for the program and the research of a special character proper for each kind of building. It is as a result of this that in merely looking at a building designed under such principles, one knows immediately its purpose, simply because its plan and elevation correspond to its needs, and it is executed throughout with a respect for artistic truth. The comparison of architecture to-day in the United States with that of twenty years ago shows clearly to every fair-minded man the salutary results achieved by French training for American students.

The greater part of my contemporary's paper was devoted to ridiculing the method by which design is taught. It will seem strange to the reader that such childish methods as he describes should result in the beautiful work they have admired. Here is the reason for this contradiction:

*In the architectural sense of anything from which one can "crib."

He speaks of the danger to American students of getting in Paris simply formulae devoid of sense, and a stock of atelier slang instead of French methods of thought. He adds, "Discredit has been thrown on the Ecole des Beaux-Arts by such men who, through ignorance, did not catch the spirit of the wonderful training." It is too true. It is regrettable that Mr. Barney, so far-seeing in that, did not stop there, without going on to give so striking a demonstration that the spirit of the training had been for him a dead letter; and that external appearances alone and not purpose and significance was all that he had brought back from his foreign travel.

This is not a reproach. The duration of his trip and the way he made it, at an age, as well, when the habit of thought is crystallized and not easily modified, made it impossible for him to see anything but superficial customs. He had then to come back deceived, and, not being the sort of man to be satisfied with this empty food, he felt it his duty to proclaim the failure of French methods—when it was really the failure of his own attempt to assimilate them.

Where he saw a "meaningless performance" in the spinning of lines, circles and grey tones which were to become a plan, he could not see that it was the work of the brain directing it. He was looking at the movement of the fingers, believing in good faith that in this were all the methods of design. Of course, he asked the reason; and as it is sometimes difficult to tell why we do one thing more than another, on account of the complication of things that determines our choice, he was answered with one of those ready-made sentences, the sort of professional slang that the students of the Ecole, or some of them, like to use, because they are short and often avoid long explanations. These Mr. Barney promoted to the rank of canon, of magic formulae, permitting anyone, professional or layman, to design, "while you wait," anything from a bishop's residence to a railroad station in a Chinese town.

My contemporary is witty enough not to take offense at the joke played on him by his companions in Paris, in saying there is such a series of formulae. In the school problems there is such a constant change that it would soon outgrow any set of formulae. One may notice in the book of competitions for the Prix de Rome, which dates as far back as 1797, a change every ten years corresponding to the change in the art of the period.

It is not the Ecole which creates the architecture of Europe. It is the architects. The students are only pupils following the impulse given by the masters. A great mistake in America has been to take as types the work of students. Whereas the French are more critical and have realized so thoroughly the immaturity of such work that they apply the term "school architecture" to all productions which have good qualities but are undeveloped. It is fair to say that no man produces an architectural work that is representative of himself before he is forty. The complexity of architectural study is responsible for this, and it is only when the different parts of the profession have been mastered that real work can be accomplished.

"The students in the school are taught to plan too much with their eyes." says Mr. Barney. Others are planning too much with figures, and of the two excesses I prefer for young men the first. Practical requirements will soon enough cut the wings of his dreams, but something will remain. It is necessary at one period of every man's life that he shall believe that the object of architecture is to produce beautiful things. Those who, during their youth, had only in mind four-foot lightwells instead of Boboli gardens will not in the end do better architecture—even for lightwells.

There are other sweeping accusations in Mr. Barney's paper. One of these is the elasticity of the School programs. I have often seen in the United States and elsewhere competition programs of fifty or a hundred pages, which one had to study for three weeks before starting to design. Now, if one admits that a student can learn how to design by doing one problem a year, let him have

such programs—with all survey information, climatic changes, cost of building and so on. If, on the other hand, one believes it is necessary to have designed much in order to design well, in the same way that one must have painted a great deal to be a painter and that three studies from life, ever so careful and complete, do not accomplish that, the objection is of no value.

He objects more than once to the phraseology used by the Patrons in the ateliers, which I am afraid he did not fully understand. For instance, a statement he takes exception to I discover to be no more nor less than that the situation of a building should have a large influence on the way it is planned—a principle certainly true, if not very startling.

If these formulae or means of expression were not in sympathy with Mr. Barney's way of thinking and he was going to Paris to study the methods of the School, he should have looked for these methods at the lectures or in the book of the only man who has authority to give them out in the name of the School. Instead of noting without understanding them the sentences which occur in the ateliers (that every intelligent student knows to be only a sort of cloak covering either results or experiments) and processes in presentation of plan, which have no importance to anyone but the newcomer—why did he not read Guadet's book, "The Elements and Theory of Architecture," which is the only authorized document on the modern teaching in the Ecole in the last fifty years. By simply reading the chapter entitled "General Principles," he would have seen that there is no need for complicated words to express what we have all been looking for in the Ecole, and the truths we have taken for a basis. It would have been fairer, in writing of the Ecole, to have taken quotations from such a book, instead of relying on personal impressions, which are subject to the same suspicion as memoirs to the historian. He would have found that what we try to do in making a beautiful plan is not to make a picture. "You must understand by a beautiful plan," writes Guadet, "a plan which allows and is apt to give beautiful things, beautiful interiors and beautiful façades. Yes, there are beautiful plans—I find the expression perfectly legitimate—but in the same way as there are beautiful books, beautiful by what you can read in them." This is quite different from what Mr. Barney states to be the beautiful plan in the Ecole. Whom are we to believe? The superficial observer, or the man who has been teaching thirty years in this school?

Further on (page 134) Guadet sums up the principles of design as he taught them, and as the others—Pascal, Daumet, Laloux taught them to us:

"1. You must be faithful to your program, be familiar with it; and also see correctly what is the character to be kept in the building.

"2. The ground, location or climate can modify absolutely the expression of a program.

"3. All architectural composition must be constructible. Every inconstructible scheme is absurd. Every scheme of construction more difficult or complicated than necessary is mediocre or bad.

"4. Truth is the first requirement of architecture. Every architectural untruth is inexcusable. If in some cases one of these untruths is overlooked on account of the ingenuity and ability shown in the building, the impression given, nevertheless, is of an inferior art.

"5. Effective strength is not sufficient—it must also be apparent.

"6. Designs proceed by necessary sacrifices. A design must be good first of all, but it must also be beautiful. You must compose then with a view both to the utility and beauty of the building. And, as an element of beauty, you will try to obtain character by variety."

This is what I think to be the teaching of the Ecole, and I believe that American architecture has made for progress in following it.

Paul Cret.

IN MRS. GUY NORMAN'S SICILIAN GARDEN AT BEVERLY COVE, MASS.

Some Recent Warehouses

The warehouses which we have to consider in the present article are free from the unarchitectural treatment involved in wholly concealing the steel construction as of girders and posts. We had occasion, in the article on this subject published in the May number for 1906, to dwell upon that misfortune—that hindrance to every designer who longs for realistic treatment of his work—the fact "that we are not allowed to show our iron constructural elements." And yet, if there is no case now before us of complete concealment of the material, there comes up continually the question as to lintels built of small material, and this not arranged as a flat arch or in any other constructural manner. Six rows of bricks, with their cross or vertical joints all in place, constituting just so much solution of continuity, can never be supposed a good lintel; they will never make up a strong-looking bar to carry and resist cross breakage.

In other respects the buildings before us are logical enough. Where exceptions to this statement occur, it will be our business to find them out.

The Chicago warehouse of Parke, Davis & Co. is interesting to the student of industrial art because of the simple manner in which an architectural treatment is obtained. It is to be asked just here how far it is the duty of the designer of such warehouses to seek for architectural treatment at all. The building mentioned above is shown in Fig. 1.

In a paper of this series, published January, 1905, now to be found on page 67 of Vol. 17 of the Record, there occur the following words in relation to yet another Chicago factory: "There is certainly no affectation of architectural ordonnance, with entablatures and all the rest of it." Evidently the writer of these words was thinking of that kind of ordonnance which is most in favor, the attempted revival of neo-Roman design in some of its forms. If all architectural ordonnance were of that kind this Parke-Davis warehouse would be excluded from the category; but it is evident that the writer of those lines was too hasty; he ought to have remembered that there is "an architectural ordonnance" which is not pseudo-Roman, or neo-classic in any of its forms.

Thus, in the instance before us, Fig. 1, the basement, although requiring windows as broad as those of the upper stories, is yet made to look massive and like a basement wall by the simple process of keeping down the height of the windows so much that each pier of solid masonry puts on a peculiar air of solidity—an appearance which it would not present if those windows were high, if the piers were long. Then comes the main wall of the building, including four stories, and this is broken up into four piers of much greater thickness than the panels between window and window in vertical series. Those piers are so modified by offsets at the jamb or reveal of each that they are made to look massive by their very isolation. The spectator is made to see at once that a very considerable mass of brickwork is carried up in unbroken form for the whole height of this window-pierced wall, staying the whole structure, carrying the ends (one feels it) of girders which support the floors, and accounting sufficiently for the permanent solidity of the front. The very fact that the wall which forms a panel between the window below and the window above is made thinner by a foot at least than these piers goes to give solidity to the piers by the simple means of contrast. The piers are really only twelve inches thicker than those panels, but that twelve inches is made to look like something very serious indeed by the setting out of the reveals in such a fashion that we have the appearance of three pilasters, one set against the face of another, and the consequent appearance of much firmness in the union of those adjacent parts.

This has taken longer to explain than it took the artist to conceive it. The thought is not very remote nor very sur-

FIG. 1. PARKE, DAVIS & CO'S. WAREHOUSE.

Chicago, Ill. Hill & Woltersdorf, Architects.

prising, but it is carried out here in an adequate fashion; the needed appearance of weight and permanence in the wall piers with many and very large windows, and reduced thereby to a series of relatively slender piers has been obtained.

Upon this wall, fifty-five feet high or thereabout, there has to be raised still another wall sufficiently high to allow of yet one more full story. The decision has been reached easily and naturally to make of that additional piece of wall an attic in the architectural sense, that is, a wall built evidently upon the main wall of the building and designed on somewhat different lines. Standing upon that sixth floor we are so near the sky and so much raised above the roofs of neighboring buildings that the full al-

FIG. 2. WASHINGTON PARK WAREHOUSE.
Chicago, Ill. Argyle E. Robinson, Architect.

FIG. 3. THE NEW SCRIBNER PUBLISHING HOUSE.

New York. Ernest Flagg, Architect.

lowance of window space may not be essential. It has been thought that a little more solid brickwork, a little less unbroken glass, may have been appropriate. Advantage has been taken of this fact to break up this new story, this attic, into larger and smaller piers, alternating with six windows of more ordinary width. The short piers, then, may be treated as simple pillars carrying a continuous epistyle. And the way in which this *pilastrata,* as it may be called, has been set upon the simpler wall below is wholly successful in its simpler proportions. This long and low detail of the front is emphasized, then, by the low gable of the roof, extremely well echoed and enforced by the broken line below its cornice, which sits so strongly upon the double slope of the roof surfaces.

If, now, the constructional character of the front be considered, the student has to accept in advance the existence and the use in this front of a metallic lintel upon which bricks may be set with their joints horizontal, as if in a continual wall surface. It is to be accepted, we have to admit, that devices not allowing of complete appreciation by a spectator who stands in the street, have been employed to make this front coherent. Is that a legitimate proceeding? Are we warranted—speaking as architects—in leaving a piece of wall, made up of ten or twelve horizontal courses of bricks, as the only apparent means of spanning a window twelve feet wide in the clear between the uprights? If your eye is caught by the joints of the brickwork all is lost; the appearance of solidity is gone. We cannot, in the beginning of the twentieth century, accept as permanent work an apparent brick lintel which does not acknowledge its method of holding together. It may be that after two or three decades have passed the

FIG. 4. REAR UPPER PORTION OF THE NEW SCRIBNER PUBLISHING HOUSE.
New York. Ernest Flagg, Architect.

FIG. 5. THE CARTER & HOLMES WAREHOUSE.

Chicago, Ill. Nimmons & Fellows, Architects.

world will have learned to expect a rolled iron lintel-beam, and to look with complacency upon a wall of brick and mortar as if it were a homogeneous mass, in which certain openings have been cut, but until that time comes we shall ask for the radiating joints of the brick arch or the definite solid bearing of the stone lintel. Grant the homogeneity of the structure and here is an admirable front.

Another building in Chicago is frankly utilitarian, a warehouse which is devoted entirely to fireproof storage, and which has, therefore, few and small windows and relatively vast spaces of brick walling. In such an exterior as this the architect is compelled to take his nearly cubical mass, his parallelopipedon, and apply ornament to it. It is quite impracticable to give it architectural treatment in the ordinary sense of the word. Fenestration there cannot be, or at least none which will account for the general treatment of the exterior. To put six windows and a wide doorway beneath the vast superincumbent mass is a prob-

FIG. 6. THE CARTER & HOLMES WAREHOUSE—DETAIL.
Chicago, Ill. Nimmons & Fellows, Architects.

lem attractive enough in the solution, and one is left wishing that the chance had been taken to insist upon the action of the piers and flat arches and lintels below in carrying the superincumbent mass.

The Washington Park fireproof warehouse is the design of Mr. Argyle E. Robinson. He has treated the flat surface nearly as a designer of rock-cut tomb fronts would have proceeded in Asia Minor about three hundred years B. C. If we turn over the folios of Benndorf and Niemann, or Petersen and Von Luschan, and consider the tombs in Phrygia and Caria, we shall find broad surfaces of rock which have been dressed and hammered and smoothed to a sufficient uniformity, and that they have been cut with incised patterns or by incisions which produced a pattern in relief. The same designs and others like them are to be found in Vols. III and IV of Perrot and Chipiez, and again in the folio of Texier, and again in the Journal of Hellenic Studies. So wide is the range of possible adornment in architecture that to come back in the twentieth century to the patterns of the fourth century before our era is perfectly legitimate and natural; and the fact that the methods are different, that we build up with hard blocks of baked clay while our predecessors scooped and cut and chiselled out of native rock, is really indifferent. Common oblong bricks allow of just such patterns as those frets and meanders, zigzags and checkers which the early Levantine rejoiced in.

FIG. 7. WELCH BROS.' MOTOR CAR CO.

Milwaukee, Wis. H. C. Hengels, Architect.

We must approach a building like this one shown in Fig. 2, without too strong an architectural leaning. We must accept it as a huge square-edged block of solid material which the artist has been obliged to treat with patterns in slight relief—patterns which have no architectural character in the ordinary sense. One would be glad to see this motive of

design carried much further. It would be well if some one having the ability shown by the design before us were to show more daring, and were to invest the exterior of his building with patterns more elaborate and not simpler than those of the early men.

Our next example is of New York, the fourteen-story building belonging to Charles Scribner's Sons, publishers and booksellers, and housing their printing and manufacturing plant. It is with some pleasure that one looks at the rear of the building, seen in Fig. 4. There are the necessary conditions fairly met. Story after story of open lofts filled with daylight from windows made as large as practicable, allowing of piers only just sufficient to carry the wall to the top, and to take the ends of necessary beams and girders. We shall have to come to that and approach that problem of how to make the needed thing architectural before the twentieth-century style will have become a living entity. Many years ago, when the American Institute of Architects was a New York society, small in membership, without affiliations in other cities, I read a paper before it when my turn had come to entertain the members present at a meeting. I remember that Richard Morris Hunt was in the chair, and that he made sounds and gestures of evident approval when I insisted strongly upon the crying need there was of taking a common veranda, an ordinary shed supported on square posts, a common brick wall resting upon a lintel course which, in its turn, was carried by light iron columns, and making a design of those things. We were to approach design, I thought, not as a study of Roman grandeur, with its essential features taken away or caricatured, but from artistic work upon unpretending structures whose naked utility might be raised into something finer as opportunity might serve. It pleases me, after so many years, to see the truth of that scheme of architectural develop-

FIG. 8. WELCH BROS.' MOTOR CO.—DETAIL.

Milwaukee, Wis. H. C. Hengels, Architect.

ment—its importance, its need, the obvious common sense of it—recognized, so far as in the twentieth century it is accepted. We have not yet begun to build buildings of high cost and great pretension on those lines, but that will come in its turn.

Meantime, if any one wishes to see just what the speaker in 1865 or 1866 had in mind, and what the first and most obvious result of such designing is sure to be, let him look at Fig. 3, in which the Forty-third street front of Scribner's building is shown. It is unfortunate that no better picture could be got. The relatively narrow street, and the conditions of the roofs on the opposite side of it, were such as to prohibit a more successful view. One cannot but deprecate the scraps of ornamental frontal which seem to furnish the attic at either end. Moreover, the cornice beneath them has too strong a resemblance to the ordinary appendage of thin galvanized iron punched into shape. This, however, does not concern us just now, for it is the fenestration only which has been suggested by the natural, the inevitable arrangement of the windows in the rear. The designer has restorted to the obvious and always happy device of enclosing his lantern-like wall of windows between two more massive vertical members, upright towers, as it were, of walling carried up with windows of only ordinary size pierced in their front. Between these relatively firm and massive towers there comes the great screen of glass, broken only by piers as slender as those seen in Fig. 4. The small details are not sufficiently made out in the photograph to claim very close attention.

FIG. 9. THE CUPPLES WAREHOUSE.

St. Louis, Mo. Eames & Young, Architects.

The Carter & Holmes building, in Chicago, is shown in Fig. 5, and the treatment of the front reminds one immediately of that other Chicago warehouse which is shown in Fig. 1. It is a statement of the facts about the roof—that it is a double-pitched roof, of slight slope, or else it is an assertion and a suggestion of such a roof as being the one most appropriate to the purpose—no one could hope to make a design of a roof sloping in one direction only. Our habits and the traditions of our youth are such that we must have a roof either flat, like a terrace, or one with two slopes at least, and the two-slope roof is associated at once with all our best memories of fine building in the past. The Carter &

FIG. 10. THE CUPPLES WAREHOUSE.

St. Louis, Mo. Eames & Young, Architects.

Holmes building is the design of George L. Harvey, of Chicago; it is very simple in conception—making but little pretense to architectural effect; but the essentials, the obvious necessities of the case are well met; the corner towers, made up of plain brick walls, pierced with simple windows, having segmental heads, enclose the broad, lantern-like façade which the proper lighting of the lofts seems to make necessary.

So far this building has seemed to the inquirer a factory building of the plainest kind, but there must be a word said of the scraps of delicate sculpture which adorn it. This feature also seems to meet an ancient requirement, an eager demand, of my own. I used to think that sculpture should really be denied the architects for a term of years, in order that they might learn to long for it, and that then, when its use was restored to them, it should be on condition of making it as good—even as delicate—as the means at hand made possible. Now, in Fig. 6, it will be seen that the quasi-heraldic sculpture of the square tablet, repeated again and again above the corbels and the cipher, are worked with minute care and not without some expression of heraldic propriety. The exact purpose of the massive corbels does not appear. If they were lower in the wall—twelve feet instead of twenty above the sidewalk—they might be thought to be a provision for an awning. There is other and similarly successful sculpture connected with the doorways, above which are carved the firm name—Carter & Holmes.

Figs. 7 and 8 illustrate partly a building in Milwaukee, Wis., the work of H. C. Hengels, of the same city. The large detail, Fig. 8, explains the checker of dark and light bricks with which the wall is adorned in a rather effective way, and shows also the very delicate batter or inward slope to the sides of the doorpiece itself. This batter is emphasized by the verticality of the window frame immediately adjoining on each side, and that contrast existing, it was a good thought which kept the inward slope almost imperceptible and made the effect reserved and severe. The whole detail is of but little effect upon the general design of the exterior, nor is there elsewhere anything to be seen of similarly delicate treatment. On the other hand, the varied color of the bricks emphasizes that peculiarity already discussed in connection with the building shown in Fig. 1, according to which parallel rows of twenty-four bricks and half bricks, alternately, are assumed to be a sufficient structure for a continued lintel; those rows of bricks, with all their joints horizontal, having no ostensible means of support or of strengthening beyond the mere tenacity of the mortar. It may be repeated that this is a solecism which must remain an insufferable violation of good building until the time comes when we accept the unseen cast-iron lintel or rolled beam as a legitimate, because an understood, means of building with square-headed openings.

Apart from this, the building is interesting; the proportions are pleasant, the pilasters carrying the entablature, as it may be called, with which the building is finished at the top, are very effective; the contrast of solids and openings is not ill made up.

In St. Louis there are, within the business quarter, a number of buildings which seem to be known as the Cupples Warehouses. Those of which we present photographs are of the design of Messrs. Eames & Young. Thus, in Fig. 9, the warehouse which fills the picture is seen to be made up of three blocks of buildings, standing side by side, with narrow streets between them; and Fig. 10 shows another of the very similar warehouses. In this last-named example, the frank presentation of the fire-escape reared against the front of the corner tower (as we have already called that vertical feature by means of which the windowed wall is framed and held together) is well worthy of attention. It is a dream which every realistic designer must have enjoyed during recent years—the dream of making the necessary fire-escape an inherent part of the design. And yet one thinks of but one or two instances in which a really architectural treatment has been given to it. This cannot be said to exist to the full

in the case before us, because the iron ladders and balconies might be removed from the face to which they now cling and might be put elsewhere about the building without change of its character. If not an afterthought, they are at least appended because the law made it necessary to put them somewhere. Those who are interested in the problem of fire-escapes may also try to solve the problem of how the frightened inmate takes these fire-escapes from the third, the fourth, the fifth or the sixth story. In Fig. 9 that is seen to be possible; and, moreover, the spiral form of the iron ladder in this instance is assuredly less restless — more nearly architectural — than the vexatious succession of parallel ladders.

PARKE, DAVIS & CO.'S WAREHOUSE—DETAIL OF FIG. 1.
Chicago, Ill. Hill & Woltersdorf, Architects.

Our present purpose is, however, to insist upon the generally pleasing disposition of the openings in Fig. 10; and

the effective result of it in a building kept severely plain and not even resorting to novel experiments in the way of design. Nowhere is there a more sedate piece of fenestration than in this severe pile of brickwork, with its effect of mouldings got by mere breaks in square alternations of bricklaying, and a proportioning of openings and solids almost classical in its restraint.

Russell Sturgis.

SCENE IN A FORMAL GARDEN IN MASSACHUSETTS.

The New York City Hall

A Piece of Architectural History

Without any dispute, the New York City Hall was at the time of its erection the most successful piece of civic architecture in New York, or, for that matter, in the United States. It had only one predecessor that was or is entitled to much architectural consideration, and that is the Boston State House, which preceded it only by a decade, the "hub of the solar system" having been completed in 1798, and the "Hall of the City of New York," as it was officially known at its beginning, having been begun in 1803. It was not the laurels of Bulfinch, however, but of some Philadelphia builder, unknown to present fame, that induced New York to spend the municipal money so freely. The report of the building committee of the Board of Aldermen, in September, 1803, advocating the use of marble for three of the fronts, sets forth that, "seeing that as a commercial city we claim a superior standing, * * * we certainly ought, in this pleasing state of things, to possess at least one public building which shall vie with the many now erected in Philadelphia and elsewhere"—and marble the three fronts accordingly were, whereas, Bulfinch and Boston were restricted to brick and sparing sandstone.

John McComb is the architect "of record" of the City Hall; there is no question about that. The cornerstone still bears incisions to that effect. The prize of $350, offered by the Aldermen, was won by the design submitted in his name, and his appointment as architect followed. In these latter years magazine articles have been written for the purpose of celebrating him, and telling all that was known about him, all based upon the assumption that he was the real, as well as the putative, author of the building. And yet there was against that assumption not only antecedent improbability but an obstinate tradition. The improbability was that a New York mechanic of the first decade of the nineteenth century should have been able to produce a work which had so little in common with the traditions of his calling at that place and time. And indeed, it is to be noted that the architectural traditions, such as they were, were not, properly speaking, traditions of McComb's calling. They were traditions of the carpenter's craft, not of the mason's. And McComb was a mason and not a carpenter.

The obstinate tradition is that the author of the City Hall was a Frenchman named Mangin.

Here are some gleanings from the old city directories that seem pertinent. Longworth's Directory for 1803, the year in which the City Hall was begun, exhibits these entries:

McComb, jun., John, builder, Robinson.
Mangin, Joseph F., city surveyor, 301 Greenwich.

These entries are repeated in 1804. In 1805 we find

McComb, jun., John, builder, upper end Washington,

while Mangin's name does not appear. In 1807 and 1808 we find

McComb, jun., John, builder, Bowery Hill,

while Mangin's name is still absent. Meanwhile, one Jones had started a new "mercantile" directory, in opposition to the established Longworth, and classified his entries by occupations. Jones appears to have issued but one number (1805-06) and in this, under the heading of "Masons, Bricklayers, Plasterers and Stone Cutters," we find

McComb, John, builder and mason, Bowery, above Spring.

In 1810, we find McComb for the first time, with his "jun" dropped and blossomed out into an architect, viz.:

McComb, John, architect, Bowery Hill,

and Mangin reappears as under:

Mangin, Joseph, city surveyor, 24 Anthony.

The next year (1811), "Eliot &

Crissy" took their turn at sailing the Longworth monopoly, and they give us

McComb, John, architect, bowery hill.
Mangin, Joseph, city surveyor, 60 warren.

The same entries, except that Mangin gets his middle "F.," appear in Longworth's for that year, the year the City Hall was occupied, though not altogether completed, and the last year that has any interest for us "in this connection."

Note that the City Surveyor was necessarily a technically educated man, possibly the only one in the New York of that day. To this day the common British architect describes himself as "architect and surveyor." As a technically educated man it is as conceivable that Mangin could have designed such a construction as the circular marble staircase of the City Hall as it is inconceivable that that structure could have been devised by a "builder and mason" with the ordinary equipment of his craft. And, as a scientifically educated Frenchman, Mangin may very well have had knowledge of the prevailing French architecture of the period, which had not much in common beyond its "classic" original with the British Georgian, with the precedents of which alone the New York carpenter of that day, to say nothing of the "builder and mason," may be presumed to have been familiar. St. John's Chapel in St. John's Park is another of the putative works of John McComb. Whoever designed it, it is in the straitest sect of the British Georgian of its period, some years posterior to that of the City Hall. It is on the face of it inconceivable that the designer who did the one did the other, and highly improbable that a "builder and mason" did either. The architecture strongly intimates that one was done by an architecturally educated Frenchman, and the other by a carpenter of colonial training, who also, in virtue of that training, was by no means an architecturally uneducated man.

So the matter has stood for a good many years, with nothing but presumptive evidence to go upon. Now I have the satisfaction of producing what may fairly be called positive evidence. Curiously enough it is to John McComb that I owe my opportunity. I am hoisting him with his own petard. Just a few weeks ago an Evening Post reporter exhumed the diary which he kept, and in it is this entry, under date of May 27, (1803):

This day the masons began to work regularly. This day a communication was published in the Evening Post, respecting the laying of the corner stone.

And here is another entry under date of June 2:

Another communication in the Evening Post about the manner Mr. Mangin was treated in not having his name published as the principal architect.

Upon this hint, nothing was more obvious than to go to the Astor Library and look up the files of the Evening Post for 1803. It may be thought that that course was indicated even without reference to McComb's "pointer." But nobody will think so who has had occasion to look up the old files of New York newspapers upon matters of local history. I remember once getting the date of the laying of the corner stone of the what is now the Old Custom House and was then the new Merchants' Exchange (out of Philip Hone's diary), and then looking up the newspapers of that date in the hope of finding authentic evidence of the name of the architect. Not one of the able journals so much as mentioned the event! In fact, before James Gordon Bennett, no New York newspaper seems to have found it necessary to keep a reporter at all. Any references to matters of local interest were confined, as in this case, to "communications." The diarist, it seems, did not keep his diary up-to-date day by day, but wrote it up afterwards at longer intervals, and so confused his dates. His "May 27" should be June 2, on which day, sure enough, the Evening Post had, not a "communication," but an editorial paragraph, as follows:

NEW CITY HALL. It would be much to be lamented that in the erection of this magnificent edifice, any differences among the members of the Corporation, or any private partialities or prejudices, should be permitted to obtain which should have an unfortunate effect upon the building itself. We hope we shall not incur the imputation of impertinence to a very great degree, if we venture to say, that in

an edifice of this magnitude and importance, it requires the constant superintendence of an architect of science, from the laying of the corner stone to the turning of the key.

"Innuendo," as the lawyers say, that the nominal architect, whose name the corner stone bore, was not "an architect of science," and was not to be trusted with the "constant superintendence" of the building. There is also an apparent innuendo that "an architect of science" had been concerned with the design, and that it was a mistake to suppose that his services could be dispensed with during the execution. But this paragraph, though it indicates that McComb was not the designer, does not indicate who was. That was reserved for June 4 (the "June 2" of the diary), when an ostensible "communication" appeared with an editorial introduction:

It is with extreme regret that we have to record a transaction so illiberal as the one which forms the subject of the following communication. We should have given it a place sooner, but we wished first to make some enquiries into the correctness of the facts, and we should now have suppressed it, had we not satisfactory reasons to believe it is founded in too much truth.

For the Evening Post.

Mr. Editor:—As one of the spectators of the parade of last Thursday, I had observed that the French architect, Mr. Mangin, the real author of the plan of the New City Hall, did not appear, and that Mr. Macomb alone, was carrying it in ceremony. The embarrassment in his countenance, which indeed was not unbecoming, reminded me of that charming line of Virgil—

Miratur . . . novas frondes et non sua poma

All this, however, I explained in my own way. The real author, said I, should be here; but he may be sick, or absent, and I thought no more of the matter. However, when afterwards, on reading the inscription on the corner-stone, I found that the author was not to be found among the large list of persons concerned in the planning and erection of the edifice, who are thus to be handed down to posterity, I grew a little out of humour. Now, said I to myself, it is strange that the name of him who invented the plan should be the only one missing; surely there must be a mistake; the stone is large enough, and such an injustice to a man of talents can never have been designed. The modesty of Mr. Macomb himself must, I think, be put to a severe test thus to be held up as the only projector of the edifice. Thus reasoning, I walked along reflecting how the omission could be repaired. The stone was laid down. There was no altering the inscription. I then recollected the famous distich of Virgil, on an occasion somewhat similar, when Bathyllus, a very indifferent poet of that age, attributed to himself certain verses of the Mantuan Bard. I immediately went home and set to work and on a strong sheet of brass I engraved the following lines, with some alterations, and contrived the next day to have it laid in the foundation of the building, not far from the corner-stone:

VII ID MAI A. D. MDCCCIII
Justis Nepotibus
Hanc aedem invenit Mangin, alter tulit honores.
Sic vos non vobis nidificatis aves
Sic vos non vobis mellificatis apes
Sic vos non vobis vellera fertis oves
Sic vos non vobis fertis aratra boves.

And when the resistless hand of time shall have laid low the immense fabric, our descendants, in finding the stone, will also find the brass, and thus render to the artist who planned it, the justice he had a right to expect from his contemporaries. An old Italian proverb says

e meglio tardo che mai.

JUSTICE.

One notes with pain a slip in our ancient friend's scholarship. Virgil's lines are not a "distich," but a quatrain. Indeed, that recondite reference to the "Sic vos non vobis" I was about myself to make when I discovered with pleasure that my esteemed predecessor in vindication had anticipated me in it. Whoever he was, he was a good fellow and a hater of injustice.

Now it seems to me that the case is complete, and that we may take it for proven that John McComb was not the designer of the City Hall, and that Joseph F. Mangin was. The "sheet of brass" of "Justice's" fancy is converted, for "posterity," into the file of the Evening Post's "aere perennius." For, observe that McComb is not only "charged with knowledge" that he was strutting in borrowed plumage, but that the knowledge is proven against him by the evidence of his own diary. It was said to his face that Mangin was the architect he himself pretended to be. He did nothing about it; he said nothing. The inference is irresistible. He had nothing to say. Of course there were many witnesses who could have been summoned at that time to determine the question if he had ventured to raise it, and so he did not venture to raise it. No wonder that he looked sheepish, as "Justice" intimates that he did, walking as sole "architect" in the procession at the laying of the corner stone, especially if Mangin happened to be among the crowd that was looking on. The situation was like that which Dickens immortalized, when young Martin Chuzzlewit returned from America just in

time to find Seth Pecksniff on the platform brandishing young Martin's plans for the grammar school:

"This is my building, my grammar school. I invented it. I did it all. He has only put four windows in, the villain, and spoilt it." . . .
"Lord bless you, sir!" cried Mark, "what's the use. Some architects are clever at making foundations, and some architects are clever at building on 'em when they're made. But it'll all come right in the end, sir; it'll all come right!"
"And in the meantime," began Martin—

"In the meantime" the children of this world are wiser in their generation than the children of light. Poor Mangin has waited a hundred and five years for this vindication in the eyes of posterity which "Justice" tried to secure to him in 1803, while McComb went on flourishing "in his generation" by reason of his astute annexation of poor Mangin's professional reputation. He had already been the putative architect of "Government House" (was this not that cupolaed structure at "Whitehall," or South Ferry, which one need not be so very old a New Yorker to remember before it was demolished?) and a few years after he was to become the putative architect of St. John's Church, possibly the real architect. At any rate, whoever did it was quite certainly not the architect of the City Hall, but some designer nourished on Sir William Chambers and "The British Vitruvius." There were, necessarily, a certain number of New Yorkers who knew the facts about the City Hall. But none of them, excepting poor Mangin, had any strong interest in unmasking McComb. Very likely Mangin was not a combative person. Quite possibly McComb found some means of quieting him. Anyhow, the story came to be forgotten, or to survive only in the nebulous shape of the obstinate tradition to which I began by referring. Nay, fourteen years after the laying of the cornerstone and the exposure by "Justice" in the Evening Post, we find, on the authority of Mr. Glenn Brown's history of the Capitol, that McComb aspired, on the strength of Mangin's work, to still greater heights. After Latrobe had been forced out of the place of architect of the Capitol, the President (Monroe) said to Mr. Harrison Gray Otis, of Boston, who visited him to urge the claims of the Bostonian Bulfinch: "Sir, we are looking to him, but Mr. Latrobe is a great loss, and it will require two persons to supply his place, and we think, also, of a Mr. Macomb (architect of the City Hall, New York)."

Doubtless McComb was a capable administrator; very likely better than the "architect of science" would have been. In fact, his seizure of Mangin's laurels indicates him as a better "business man" than that artist. But he was not the architect of the New York City Hall. Now that the case is made so clear, it seems to behoove the City of New York to "do something." The approaching centenary of the official occupation of the City Hall seems to invite such a doing. To efface the name of John McComb, and substitute the name of Joseph Mangin, from the inscription on the cornerstone would be only justice. But it would be harsh justice, now that the one is as helpless as the other. And McComb really deserves a place, though not the place he occupies, in the history of the building. Perhaps the claims of abstract justice would be best practically served by a compliance with the suggestion of our concrete "Justice" of 1803. Perhaps the best thing to do would be to affix to the building, as part of the exercises of the centenary, a bronze tablet, the literal "sheet of brass" of our ancient friend, leaving out the sarcastic lines of the "Mantuan Bard," but unmistakably importing that Joseph F. Mangin was the "architect," in the sense of being the designer of the City Hall, with possibly the addition of the proverb, either in the Italian of our ancient and learned friend, or in the vernacular version of "Better late than never."

Montgomery Schuyler.

Some Business Buildings in St. Louis

In the United States at the present time undoubtedly the consummation most to be desired in all varieties of urban building is the establishment of some appropriate convention. No general improvement in design is possible as long as every ambitious architect, just insofar as he is energetic and enterprising, seeks chiefly to attain reputation by his great originality. The conscious pursuit of architectural originality may add to the American architectural stock some few buildings of high individual interest and excellence, but it is none the less in its general results both wasteful and sterile. The few good buildings are paid for by a multitude of frenzied or feeble examples of architectural design. The more gifted architects must needs lack sense of responsibility towards their less-gifted brethren; and the latter are deprived of the advantages of helpful leadership. Neither the one nor the other is in a position to take for granted as much as he should; and to take a great deal for granted is one indispensable condition of economical and progressive human achievement.

Fortunately, American architects are reaching a position which allows them little by little to take more and better things for granted. In almost every class of urban building certain appropriate conventions are obtaining some degree of authority. It is scarcely necessary to say that these conventions are not by any means finished examples of architectural manners; but at least a building, in order to claim attention, is no longer obliged, figuratively speaking, to slap a man in the face. And this statement is perhaps more true of sky-scrapers than it is of any other class of urban building. For many years there has not only been a distinguishable convention which has partly determined the design of these buildings, but this convention has been gradually improved. In its earliest phase it consisted in designing tall buildings somewhat after the analogy of the classic column—with a substantial base, a long shaft and a decorated capital; and this convention was an improvement upon designs which depended for their effects chiefly upon the horizontal grouping of the stories. It emphasized, rather than disguised, the fact that a sky-scraper is substantially a tower. On the other hand, the convention of the columnized sky-scraper also had its disadvantages. It tempted architects to make the base of their tower look strong by resting the superstructure on heavy arches; and these arches not only belied the structure of a sky-scraper, but were frequently both inconvenient in use and clumsy in effect. Then the comparison of the topmost division to the capital of a column persuaded many an architect to waste large sums of money on overloading these crowning members with decorated detail which, no matter how large it was in scale, could never be effective from the street. For this reason the analogy of the column needed to be modified so as to express more frankly what a sky-scraper was, both in structure and function.

Such a modification has been taking place of late years; and Messrs. D. H. Burnham & Co., of Chicago, have had a great deal to do with the process. The triple division of the façade has been retained, but the whole front is treated frankly as a screen, every story of which is devoted to substantially similar purposes. The lowest member is not emphasized or strengthening, except when such emphasis is a natural expression of the use to which these stories are put, as, for instance, when a bank requires an exceptionally high ceiling for its main office. Neither is any attempt made to render the topmost member interesting by means of ineffectual ornament. Certain simple devices are sometimes used in order to deepen the shadows on these remote stories; but decorative detail is reduced to a minimum. As the result of such modifications the shaft of the column becomes much less sharply distin-

WRIGHT BUILDING.

St. Louis, Mo. Eames & Young, Architects.

LIGGETT BUILDING.

St. Louis, Mo. Eames & Young, Architects.

FRISCO BUILDING.

St. Louis, Mo. Eames & Young, Architects.

guished from its other members, and the effect of the whole front takes on a strong tendency to monotony. But monotony of this kind does not necessarily result in a dull and uninteresting façade.

The sky-scrapers reproduced herewith and designed by Messrs. Eames & Young, of St. Louis, bear a very interesting relation to the convention the modification of which we have been briefly tracing. They are, all of them, influenced by the convention; but they are influenced in different ways and to a different effect. They illustrate admirably the fact that an architect may accept an appropriate convention and yet find abundant room within its limits for free movement. These three sky-scrapers are conventionalized; yet they are all different, and their differences are worth careful description and analysis.

The best point of departure for this description will be the Liggett Building. This sky-scraper, which is seventeen stories high, is divided horizontally into three parts by two plain courses of masonry; but the horizontal divisions count for little in the total effect. In looking at the façade one gets chiefly a sense of a certain mass and height, pierced by a certain number of monotonous openings; and neither the darker color of the lowest division nor the simple ornamentation of crowning member serve or are intended to serve as particularly emphatic marks of distinction. The integrity of the mass of the building is preserved by this monotonous treatment, which is precisely expressive of the internal arrangement of and its function as a collection of offices, all of which are substantially similar to one another. In the design of this building, however, the vertical dimension is emphasized just as little as is the horizontal dimension.

One has only to place the Liggett next to the Wright Building in order to appreciate how much more interesting a sky-scraper becomes because of the emphatic treatment of its vertical dimension. The Wright Building is a few stories taller than the other, and its frontage on both streets is somewhat bigger. But the relation of the height to the street frontages is about the same. Moreover, the design of both of these buildings is frankly monotonous and utilitarian. The architects have not wasted their client's money on ornamentation, which adds nothing at all to the earning power and practical availability of the structure. The crowning member of the Wright Building is somewhat more elaborately treated than is the corresponding member of the Liggett Building; but the ornamentation has been discreetly applied, and is scarcely intended to be seen from the street. It does not serve to distinguish the two buildings in any radical way, and the point of most importance is the better effect of the uniformly square windows of the Wright Building. In fact, improvements of treatment could not be carried much further than in the latter structure. The effect of the Wright Building is, however, more impressive and interesting, largely because, in the long central division of the façade, its vertical lines are continuous and its horizontal lines broken, whereas in the Liggett Building both have been treated alike. The façade of the latter still looks like a wall, pierced with openings, whereas in the case of the latter the façade looks, as it should, more like a frame than a wall. The structure is not, of course, expressed with entire frankness, but it is disguised only to a slight extent, and its more interesting effect depends largely upon the fact that it seems in a way to rejoice in its own towering height.

The Wright Building may also be very favorably compared with the "Frisco" Building, designed by the same architects. Here again the architects have in general remained faithful to a wholesome convention. There is a similar division of the façade into three horizontal members. There is the same frankly monotonous treatment of the openings, and the same emphasis of the vertical lines. The effect of the "Frisco" Building is, however, not at all as good, because certain not very successful attempts have been made at composition and ornament. The piers on the three corners have been strengthened, which in itself is a justifiable device to give the two façades firmer lateral boundaries.

Less approval can, however, be bestowed upon the treatment of the entrance. A feature has been made of the chief means of access to the building by arching the opening, by strengthening the supporting piers as far up as the tenth story, and by making a recess, with narrower windows, of the space between these piers. In appearance, however, the effect of this treatment is to weaken both the member, which the architects desired to emphasize, and the whole façade. Such a method of emphasizing the entrances is ineffectual, because the strengthened division is lost in the general monotony of the façade, while the façade itself loses thereby its integrity.

In another respect, also, the "Frisco" Building is less successful than the Wright Building. The former is more ornamented, but the ornament has been less successfully used. It can scarcely be said that the "Frisco" Building is over-ornamented, for the architects have been in their most liberal moments very discreet in its employment; but the additional detail does not add to the interest of the building. The terra-cotta ornament with which the vertical piers are crowned is merely an annoyance; and the same is true of the more elaborate treatment of the cornice and its apparent supports. The pieces of terra cotta placed immediately below each window opening are less objectionable, but would have been better absent. The instant one places the "Frisco" Building next to the Wright Building one gets a most lively impression of the latter's superiority in appearance; and the superiority is due mostly to its comparative simplicity and its freedom from irrelevant composition and detail. In case the owners of the "Frisco" Building especially demanded from their architects a larger supply of ornamental detail, the latter could have altered the general design of the building in order satisfactorily to meet this demand. The proportions of the "Frisco" Building are not such as to demand conformity to the convention which usually determines the design of tall buildings. It attains only the comparatively modest height of twelve stories, and its longer front is much longer than usual. The relation between this frontage and the height is such that the building might well have looked better in case some balance had been preserved between the horizontal and vertical lines, and a design whose horizontal dimensions had been emphasized would have been better adapted to ornamental treatment.

Whatever criticisms, however, one may make in detail, St. Louis is to be congratulated on the acquisition of skyscrapers such as those illustrated herewith. They constitute, together with other bulidings designed by other architects, an indication that St. Louis is participating in the general improvement in the design of business buildings which has been noticeable of late years. One can scarcely say that the period of rapid construction which has just closed has been distinguished by as many brilliant individual architectural performances as the period which finished with the panic of 1893. But if exceptional individual performances have been less conspicuous the general average has been higher. There have been a large proportion of buildings erected whose design shows intelligence, experience and conscientious attention to detail. American commercial architecture has of late years been given a wholesome direction. It has been determined by currents of architectural ideas which are both more general and more relevant than those which formerly obtained; and if our architecture is ever to obtain national characteristics this is the only road whereby such a goal can be achieved. Its national character must be slowly and laboriously constructed in obedience to certain comprehensive and strictly pertinent ideas; and this process must be consciously continued until these ideas obtain the force of an authoritative tradition. Buildings such as those illustrated herewith have the great merit of contributing to the formation of such a tradition.

William Herbert.

An Architectural Sculptor

Lorenzo di Mariano, called Il Marrina (Marina), was the last great master of the Sienese school of sculpture. He closes the hundred years' period inaugurated by Jacobo della Quercia, one of the conspicuous leaders of the Renaissance movement and the sculptor whose works brought more renown to the school of Siena than did those of any other of its members. In 1266, when Niccola Pisano came to Siena, at the invitation of Fra Melano, the Cistercian, to erect a new pulpit in the cathedral, he not only founded the Sienese school of sculpture, but he sowed the seed of that classic revival which ultimately resulted in the entire revolution of the plastic arts. With Della Quercia, whose date is about a century later (1374), the golden age of the school was ushered in, and Il Marrina, born a century later still (1476), marked the end of the school's activity.

The father of Marrina was a Sienese goldsmith, and it is more than likely that Lorenzo received his earliest artistic training in his father's shop. The goldsmith's craft serving him, as it did so many of the sculptors and painters of the Italian Renaissance, as a threshold to the more serious and monumental arts. In any case we find in all his work the delight in the delicately decorated moulding, the facility in arabesque and the deep undercutting of reliefs; all reminiscent of the technique of the metalworker.

Lorenzo, at the age of fourteen, that is, in 1490, entered the school of sculpture of the Opera del Duomo, where he studied under Giovanni di Stefano, who was then head master there, and whose best work, a statue of St. Ansano, is in the small baptistery of the Cathedral of Siena.

In 1506, sixteen years after his entrance into the Opera as a student, Marrina, in his turn, attained to the position of *capo maestro*, formerly held by his teacher, and master. Besides this, he had in the mean time gained the patronage of the Piccolomini family when they were powerful politically and enthusiastic in erecting memorials to their family, zealously beautifying the cities with which their name was associated.

It was they who commissioned him, in 1504, to decorate a chapel in the church of San Francesco, connected with the Francisçan Monastery, originally located just outside the city limits, though now, while beyond the wall, the ground upon which it stands is included within the city's boundaries. It was in honor of the first visit of Aeneas Sylvius Piccolomini to Siena, after his elevation to the Papacy as Pope Pius II., that this was brought about. The Pope was, during this visit, the guest of the Franciscan monks at this monastery, and in order to accommodate his numerous visitors who thronged to San Francesco the gate of the city leading to the monastery was ordered to be kept open throughout the night. To commemorate this event, the monastery has from that time been included within the city limits, and the gate has remained open.

The decoration of this chapel in San Francesco, which Marrina did for the Piccolomini, included an altar and *graffiti* for the pavement, but unfortunately the whole chapel has been modernized within the last few years through the munificence of a lady of the Saracini family, and the only work of Mariano's which remains is the pavement in which are represented the cardinal virtues—Justice, Temperance, Prudence and Fortitude; but even these have suffered much by restoration. The chapel is dedicated to San Andrea, and belonged to the nephews of Pope Pius II., the Todeschini Piccolomini and the Piccolomini d'Aragona.

The architectural note struck in this first commission was to continue throughout Marrina's career. All of his works which we know of, with the exception of some terra-cotta figures, are

REREDOS IN THE FONTEGIUSTA AT SIENA, THE MASTERPIECE OF IL MARRINA.
(From Bode.)

DETAIL FROM THE REREDOS BY IL MARRINA IN THE FONTEGIUSTA—SIENA.

primarily decorative or architectural, though in one of these he has introduced a pictorial relief in which he gives evidence that his grasp of that branch of his art was far in advance of that of his contemporaries.

In 1508, if the archives are to be credited, Mariano had a commission from the Piccolomini to carve the capitals for the columns in the court of the palace, known for many years as Palazzo Todeschini Piccolomini, but which later, when it became the property of the government, was renamed the Palazzo del Governo. At the present time it contains the state archives of the city, one of the most complete collections of the sort in Italy and of invaluable assistance in compiling the political and art history of Siena.

The design of the palace is attributed to Pietro Paolo Porrina, of Casole, and is similar in character to the early Renaissance palaces of Florence, particularly that of the Rucellai, in which the idea of the fortress and the dwelling are so successfully combined in one building. The documents mention, beside the capitals, other sculptured ornament, which perhaps refers to the coats of arms above the entrance on the long façade and another at the corner of the building. It may even go so far as to include the cornice at the top. All of this work is bold and strong, and unlike any other performance of Marrina's, for in every example of his work, except in this, there is that tendency toward delicacy and elaborateness which, as has been stated above, indicates his early training as a goldsmith. That sort of treatment in this case, where the architecture is strong and bold, would, however, have been quite inappropriate, though an artist of less breadth might not have realized it.

The type of the capitals is that modified Corinthian capital which was so often used by the early Florentine architects. In this case the disk on the middle of each side of the abacus is replaced by the crescent of the Piccolomini and the two rows of leaves, are separated by a sort of subordinate astragal mould, placed directly above the first row of leaves.

It was also from the Piccolomini family that Marrina received the commission for the entrance to the library of the Cathedral of Siena, which Cardinal Francesco Piccolomini, afterwards Pius III., erected to the memory of his uncle, Aeneas Sylvius Piccolomini—Pope Pius II. This building contains the great missals used in the choir of the cathedral outside. The lower part of the wall is wainscoted, above which is a slanting shelf; upon this the great tomes lie, not crowded together as ordinary books are, but lying on their sides in luxury, with space between to be opened out and display themselves in all their grandeur. Above the shelf the walls are decorated by Pinturicchio with scenes from the life of Aeneas Sylvius as scholar, cardinal and Pope.

The entrance to this room, which is the part of the work allotted to Marrina, is on the north wall of the cathedral and occupies almost the entire width of the fifth bay, counting from the western façade. The composition is divided into two parts, one side containing the entrance doors, the other an altar over which has been placed a bas-relief of St. John the Evangelist, the authorship of which is uncertain. The remainder of the work, however, is by Mariano, and shows that he was in no way inferior in this decorative sculpture to the best Florentine masters of this period.

The two bays of the composition are treated with arches supported by pilasters decorated with symmetrical arabesques. These symmetrical arabesques, which Mariano always used, are much more formal in their treatment than those employing the elaborate rinceau, in which the figures of birds and animals are disposed in all conceivable positions, such, for example, as those which one finds in the church of Santa Maria Miracoli, at Venice.

The two entablatures—one above the pilasters, the other above the arches crowning the composition and supported on stunted pilasters—are both elaborately ornamented, particularly the friezes, which are decorated with griffins and horses carrying genii, or *putti,* on their backs. The lunettes contain the

DETAIL FROM THE REREDOS OF THE FONTEGIUSTA AT SIENA.

arms of Pius II., which were afterwards adopted by Pius III. These are surrounded by wreaths of fruit and flowers, suggestive of della Robbia, and supported by two nude children. In one spandrel the shield is surmounted by the cardinal's hat, with its cords and tassels; in the other by the papal crown and keys.

The frieze over the door is decorated with crescents, the device of the Piccolomini, and this same emblem also occurs in the capitals of the pilasters as in the Palazzo del Governo.

Practically, every surface of the composition is decorated, and there is much discretion and refinement shown in the treatment, not only in regard to scale, but also in the height of the relief. The lunettes, being in the deepest shadow, are treated in the boldest relief. The architecture is well composed and proportioned, and the employment of the

COLUMN CAPITAL FROM THE PALAZZO PICCOLOMINI, SIENA.

panels of colored marbles around the door opening, in order to increase its importance, is ingenious and effective. The bronze gates which close the library are the work of Antonio Ormanni.

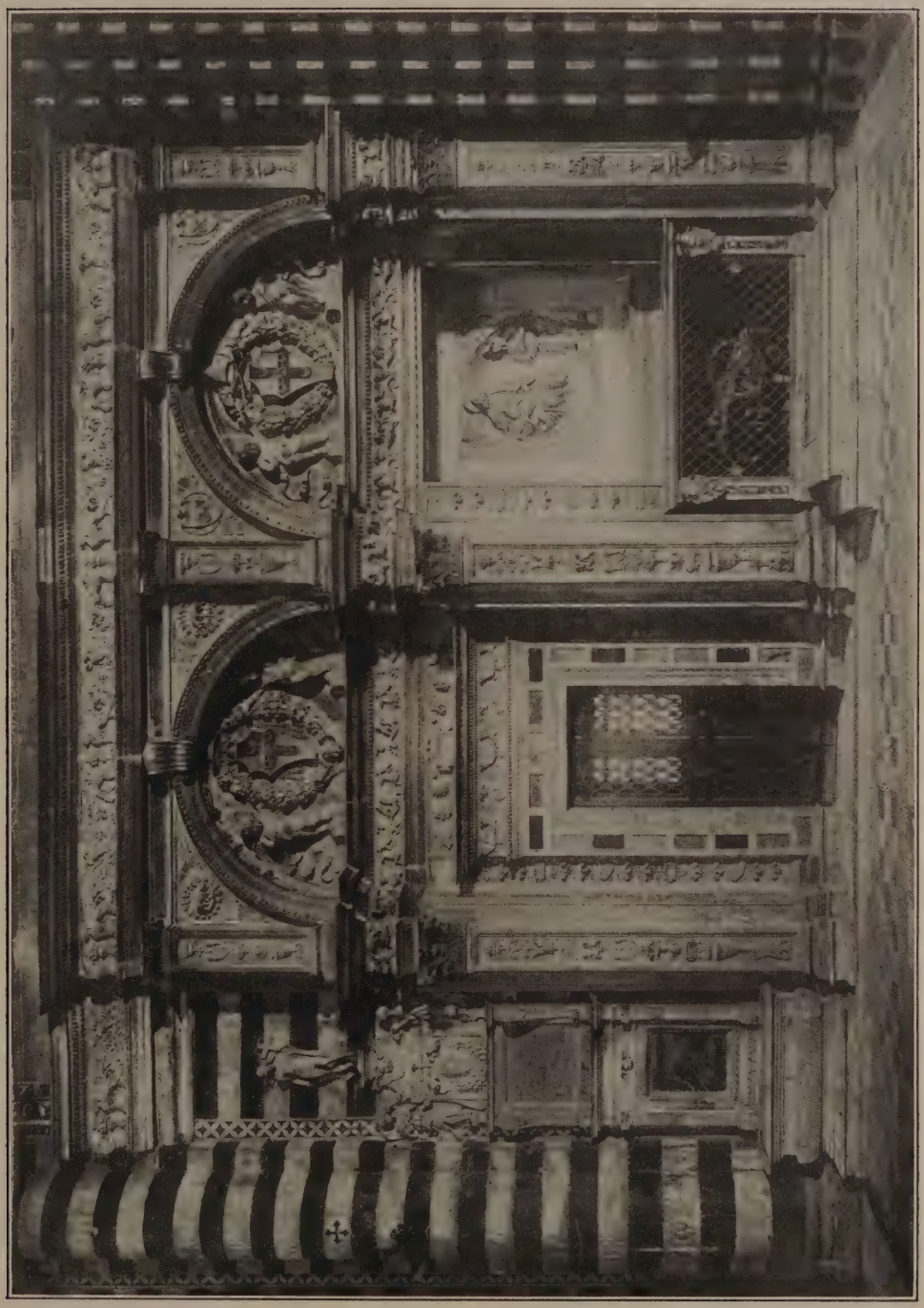
Imperiale, in which the Florentines were defeated by the Sienese, allied with the Neapolitans, under the leadership of Alfonso, Duke of Calabria. The date which this work bears is 1517.

BRACKET FROM THE PALAZZO PICCOLOMINI, SIENA.

The masterpiece of Lorenzo di Mariano is the reredos of the main altar in the church of Santa Maria, in Portico, at Siena, called *Fontegiusta,* which was built in 1479 by Francesco Fideli and Giacomo di Giovanni, of Como, as a thank-offering for the victory of Poggio

The reredos consists of two free-standing columns, raised on pedestals and supporting an entablature surmounted by a pediment. Inside this frame is an arch, the upper part of which is occupied by a relief representing the Resurrection; the sarcophagus, from

ENTRANCE TO THE BAPTISTRY IN THE CATHEDRAL OF SIENA.



ENTRANCE TO THE PICCOLOMINI LIBRARY IN THE CATHEDRAL OF SIENA.

which the figure of Christ rises, with the two columns supporting it, forming a frame which occupies the lower part of the arch opening.

Here, as in the library entrance, the architecture is elaborately decorated. The caps of the columns are of the bell type, in which *putti* and dragons, modeled in the full round, exhibiting the greatest skill and mastery of the technique of the sculptor's and modeler's art, are substituted for the scrolls and leaves of the Corinthian capital.

The large frieze is carved with griffins and winged cherub heads, connected by delicate scroll lines, symmetrically arranged about a central vase filled with fruit, from which two serpents protrude their heads.

The tympanum framed by the pediment contains the sacred monogram designed and adopted by S. Bernardino, the great Sienese preacher as his symbol, supported by two flying figures. All of the small mouldings are elaborately decorated, and the carving is executed with the greatest delicacy. This is not the case, however, with the anthemions which are placed at the apex and on either side of the pediment. These are so out of scale and keeping with the rest of the design that one wonders whether they might not have been a later addition. The pilasters back of the columns and the panels on either side of these are filled with arabesque, again symmetrical, in which the *putti* griffins and serpents reappear.

The relief occupying the upper part of the space framed by the arch consists of four figures: Christ throwing off the inertia of death, rising or rather gently lifted from the tomb by three angels —two kneeling, one on either side, and each holding an arm, while the third behind gently supports the relaxed body. The introduction of the fourth figure into the semicircular space usually filled by the more simple arrangement of three, shows Marrina to have been a master who did not fear to set himself difficult tasks. This fourth figure, however, in his hands proves an advantage instead of a detriment; the lines of its outspread wings bring the whole composition together, and harmonize agreeably with the lines of the arch above.

The contrast between the heavy and relaxed form of Christ and the delicate but vigorous figures of the angels is wonderfully done; one feels the weight of the one and the activity and strength of the other.

It is an interesting comment on what perhaps might be called the artistic humility of the period that a man with so much ability for figure sculpture should, so far as we know, have devoted himself mainly to decorative work. In our day the decorative side is generally thought to be beneath the consideration of the sculptor and left to be carried out from the drawings of the architect by the modeler, generally a foreigner, whose standing in the community and whose attitude toward his work is rather that of the mechanic than of the artist. It reminds one of a remark made by a foreign musician regarding our orchestras: "The orchestras are composed of foreigners," he said; "the Americans are all concert soloists."

The spandrels contain draped figures, carved in lower relief than those beneath the arch.

There is a story regarding this masterpiece of Mariano which tells how the fame of its beauty, having reached the Pope, caused him so to desire to see it that he ordered it taken down, packed on mules' backs and brought down to Rome, where it was set up in order that his wish might be gratified. There are two versions of the tale, one in which Julius II. is the Pope, the other in which Leo X. figures as the pontiff. Doubtless there is no truth in either version, yet this does not in any way decrease the value of the story, for, true or untrue, it eloquently sets forth the great beauty of the *Fontegiusta* which inspired it and caused those who knew Mariano's work never to question its authenticity.

The Marsili reredos in the church of S. Martino, at Siena, was done in 1522. It resembles in composition the *Fontegiusta,* though it is far less elaborate. The columns are replaced by pilasters decorated with arabesques, and the space

TERRA COTTA FIGURE, SANTA CATERINA, BY IL MARRINA, NOW IN THE CONTRADA CHURCH OF THE DRAGON.

inside the arch is filled by a painting instead of being occupied by a relief, as is the case in the earlier work. The same motives, however, occur in the decoration, the sacred monogram of S. Bernardino, the griffins and the symmetrical arabesques. In one respect it differs from the *Fontegiusta,* in which the pedestals under the columns are raised upon a base the same height as the altar, while in the Marsili reredos the pedestals rest on the floor and the altar is between them.

To this same period belongs a reredos in S. Girolamo, which frames a Madonna by Matteo da Siena.

The entrance to the chapel of San Giovanni, in the cathedral, has been attributed in part to Mariano, though there is little reason for believing that this is so. The carving lacks all the snap and vigor of his work, and the ornament has none of the delicacy and feeling or proportion which one finds in the entrance to the library, only a few feet away. The entire work has never been attributed to Mariano, for one of the pedestals under the columns has always been held to be a Roman altar and the other Federighi's copy of it. It is quite possible that the entire work may be his also.

Another disputed work of Marrina's is the marble seat on the left side of the Loggia dei Nobili. The only reason for this attribution is a document in the archives which states that he received the commission for the work. The bench, though, which is now there was evidently not done by Mariano, for there is not the slightest evidence of his hand in the treatment of the carving with which it is enriched.

There seems to be no work of Marrina located outside of Siena, with the exception of a Madonna, which Müntz speaks of as being in the Louvre.

Mariano worked in terra-cotta as well as in marble, and did in this medium for the convent del Paradiso, now suppressed—a Santa Caterina to be placed above the door and an Annunciation, a *"nostra donna"* with an angel. The three-quarter figure of Santa Caterina is now in the Contrada Church of the Dragon, and represents the saint in the Dominican habit, bearing on her hands the stigmata.

This concludes the list of Marrina's works, and it comprises both the items which are believed to be authentic and those which are doubtful. It is hardly likely that it is complete, for it seems incredible that there are not many examples entirely lost to us.

Regarding his private life, there is little information, except that he married, in 1507, Elizabeth, daughter of Ser Jacobo Bertini. His sons which she bore him did not become sculptors, but seem to have returned to the craft of their grandfather, the goldsmith. In 1534 he died.

Lorenzo di Mariano was the last great Sienese master of sculpture. The history of the school ends with him, but his talent, at least, brought distinction and glory to the last days of the school, which had its first inspiration from Niccola the Pisan, and which produced in its greatest period the master Jacobo della Quercia.

Alfred H. Gumaer.

NOTES & COMMENTS

AN ARCHITECTURAL COMPARISON

On Fifth Avenue, in New York, just north of 52d Street, are located side by side two houses which fairly invite comparison one with another. The first of these houses, situated on the northwest corner of Fifth Avenue and 52d Street, was designed about twenty-five years ago for Mr. William K. Vanderbilt by Mr. Richard Morris Hunt. The adjoining house was built only two years ago for Mr. W. K. Vanderbilt, Jr., from plans by Messrs. McKim, Mead & White. They invite comparison with each other, because of the changes in the temper of American architectural design, which have taken place in the interval between the erection of these houses, and which receive a neat illustration in the character of the two dwellings.

The point of comparison does not, however, consist in any consideration of the relative merit of the two houses, considered apart from their juxtaposition one with another. It depends upon the fact that the later house was designed in something the same style as its earlier neighbor, precisely because they were to be situated side by side; and the point which they illustrate is the different treatment which this style received from Mr. Hunt over almost a generation ago from that which it has recently received at the hands of Messrs. McKim Mead & White.

The early W. K. Vanderbilt house has always been popular with New Yorkers. One frequently heard it asserted by people of some architectural discrimination that they preferred it to any residence in New York; and most assuredly it has well deserved its popularity. Not only was it the beginning of better things in American residential design, but the beginning it made was an extraordinarily good beginning. The twin houses built for Mr. W. H. Vanderbilt on the block to the south stand for the culmination of the old New York brownstone residence. The W. K. Vanderbilt house was one of the first signs of emancipation from a discredited convention; and its popularity was partly owing to this fact. It was liked, however, very much more because in itself it deserved to be liked. It possessed distinction, elegance, dignity and even repose. It was pleasant in the color and texture of its stone, strong and free in treatment, discreet and refined in its ornamentation. The possession of these qualities was the more remarkable, because the phase of French Renaissance architecture, from which its style was derived, has a tendency to enfeeblement from excessive elaboration, and the façade of the Vanderbilt house on 52d Street does not wholly escape this fault. But the frontage on Fifth Avenue possesses a combination of refinement, simplicity and strength, which to the present day has remained very unusual in American domestic architecture.

Its combination of refinement, simplicity and strength was all the more remarkable, considering that its designer had not escaped an unnecessary archaism of treatment. An excessive fidelity to certain accidental features of the earlier buildings, from which they borrowed their forms, was characteristic of much of the work of this period; and in many cases this literal reproduction of the models resulted under the new conditions in a comparatively feeble architectural effect. But in the case of Mr. Vanderbilt's house, Mr. Hunt reproduced some of the best traits of early French Renaissance design; and his success is so conspicuous that the archaism of some of the details must be allowed to pass. The little balcony at the level of the second floor on the northeast corner of the building is a mere affectation with as little aesthetic value as it has practical use; and the same statement is almost as true of the tower, which is fitted into an angle of the Fifth Avenue frontage. The tower may add something to the picturesque effect of the building; but the interest of the design does not consist in its picturesque quality. It consists, as we have said, in its combination of simplicity, strength and refinement; and from this point of view, the tower diminishes rather than emphasizes the architectural interest of the façade. In spite of these and other archaic details there is nothing quaint about the dominant impression produced by the Fifth Avenue frontage. It is an example,

on the whole, of most excellent manners—of dignity, self-possession and repose, and manners of this kind are demanded by its situation on fashionable Fifth Avenue.

The adjoining house to the north has, as we have said, been only recently completed from plans by Messrs. McKim, Mead & White; and the two buildings are, of course, intended to harmonize. The material used in both houses is as near as possible the same; and both of them are examples of French Renaissance. Nevertheless, in spite of these similarities the two buildings produce an extremely different effect; a little of this difference of effect may be due to differences in plan. The newer building contains five stories, as compared to only four in its earlier neighbor; and in order to get these five stories in, without any noticeable increase in the height of the junior house, it was necessary to alter the proportions of the frontage. The junior house is entered at the street level, instead of by a low stoop, the height of the first story has been made smaller; and its cornice line higher than that of the senior house. It should be added, however, that no great discrepancy is noticeable. Inasmuch as one house had to be a story higher than the other, the architects have been very successful in keeping the lines of the junior house substantially harmonious with those of its predecessor. The difference in effect between the two houses is only to a small extent due to variations in plan. Its origin must be traced rather to a difference in temper in handling the French Renaissance style from which both were derived. The junior building belongs to a later phase

THE W. K. VANDERBILT RESIDENCE.

52d St. and 5th Ave., New York. (Photo by J. H. Symmons.) R. M. Hunt, Architect.

of French Renaissance architecture than its neighbor. The archaistic towers, balconies and niches have been abandoned. The ornamentation has assumed later characteristics; and one gets the sense which may be illusory that there is more of it. The interesting result is, however, that these changes which are in certain respects an improvement, have not on the whole improved the effect of the junior building. It has all the refinement of its predecessor; but it is lacking in strength. It looks weak beside Mr. Hunt's more archaic design; and it is not difficult to trace the comparative strength of the latter to an intelligible source. In the senior building the entrance, with its complimentary treatment on the upper part of the façade, has an emphasis corresponding to its essential importance; and what is still more effective the wall space is not to the same extent broken up by openings. The senior building derives its strength most of all from its ample stretches of unbroken masonry, which the façade contains, and a better illustration could not be desired of the advantage which an architect gains from not being obliged to pierce his walls with too many windows. While it was not the fault of the architects that the walls of the junior building had to be pierced by a comparatively

THE W. K. VANDERBILT, JR., RESIDENCE, SHOWING THE OLDER HOUSE ON THE LEFT.
52d Street and 5th Avenue, New York. McKim, Mead & White, Architects.
(Photo by J. H. Symmons.)

large number of openings, it is a pity that they could not by some expedient have avoided the weakness which by comparison, diminishes the effect of the newer building. With any other neighbor the junior Vanderbilt house would not have made an impression of this kind, but in order to hold its own against its older relative, every sacrifice should have been made to give it simplicity and strength.

LESSONS FROM CROSBY HALL

Now that Crosby Hall is not only doomed to demolition but in process thereof, it may be instructive to consider the unavailing efforts for its preservation. There is no question of the historical or architectural interest of the building, or at least of that part of it forty or fifty feet back from Bishopsgate Street, known as the banqueting hall. The front has been modernized and spoiled in the modernization. But the banqueting hall is a most interesting relic, and a good example of English fifteenth century Gothic, 67 feet long and 38 high, and much resembling one of the smaller college halls at Oxford or Cambridge. A great many American tourists know it. For it is not so many years ago that it fell into the hands of an enterprising and enlightened publican who, having subjected it to "restoration" in the most approved manner of the Victorian Gothic, opened it for "restauration." It had its uses for the business men of "the City," and became a little Mecca for the American tourist to resort to for a British luncheon. The house of the richest London merchant of his time, and that time long enough ago to enable it to have served as the residence of the Duke of Gloucester, not yet Richard III., and to have been celebrated by Shakespeare, it was necessarily an object of interest to the tourist, after the Tower and Westminster Abbey, which were senior to it, and St. Paul's, which it antedated by two hundred years. There are older churches and "college fanes" and even country seats in England, but as a "first-class city residence" of its period Crosby Hall was unique.

Surely one would suppose that there would have been enough of the historic spirit in England to save it. There was an immense gush of "appeals" in the newspapers and from societies and individuals which made an impression partly comic and partly pathetic. The bank which had bought the premises because it needed them in its business showed the most liberal desire to meet the views of the aesthetes and the antiquarians, and gave extension after extension of time to enable the deplorers of their "vandalism" to save the old building by providing the bank with another site "equally as good." "Royalty" was interested. Consequently snobbery was keenly interested. But after the British public had been repeatedly and appealingly asked how much it would be sorry to see the monument go, it appeared that the British public would not be sorry $300,000 worth, which would have been an efficacious sorrow.

"They order these matters better in France." In France a building analogous to Crosby Hall would long ago have been put under public guardianship as a "monument historique." Nay, while the agitation against the demolition of Crosby Hall was going on in London, the progress of the works for the preservation of the Tour St. Jacques carried on under public auspices was carefully noted in the press of Paris. We even order these matters better in America. Fraunce's Tavern occupies a site more or less analogous to that of Crosby Hall. It is a century and a quarter only since the event that gives it fame took place. Yet we have managed to restore Fraunce's Tavern. It is quite safe to say that if we had a building in lower New York comparatively as interesting as Crosby Hall in the City of London, we should find means of keeping it and that we should not allow the want of $300,000 to stand in the way of its preservation. And yet, most curiously, some of the British jeremiads over the demolition ascribe the public indifference to the spread of "utilitarianism" and "godlessness" in public education, America exemplifying the one and France the other, when it is quite certain that neither in America nor in France would such a thing have been allowed to come about.

Meanwhile, it is gratifying to learn that the material of the historic house, though in its present condition only junk, has been carefully marked and stored so as to be available for re-erection. A reverend Briton makes an appeal to the public for pecuniary aid to set it up again in Chelsea in conjunction with the "Hall of Residence" of a kind of British University Settlement. But America should not suffer this. Crosby Hall should be re-erected on or near the Lake Front in Chicago. Only think what a satisfaction it would be for the hospitable Chicagoan gently to lead to it the British tourist declaiming against the "utilitarianism" of Chicago.

ANOTHER BOSTON VISION

Though Boston's Metropolitan Improvement Commission is not to report until the end of the year, the fact that it is making studies preparatory to a report has done much — as such conditions always do—to increase the general interest in a physical remodeling of the city and to invite the bringing forward of various projects. Among the more notable of such plans is one recently brought out by Stephen Child, a landscape architect. Taking the State House as a center, his plan has to do with the area that would be swept by a radius extending from the State House to the further shore of the Charles River, opposite Charlesbank, if this radius were conceived as slowly turned to the east until its further terminus touched City Hall Square in Charlestown. The interest of his suggestion lies largely in the facts that it deals with a portion of the city which especially needs redeeming, that his plan supplements and completes the magnificent development now going forward above the new dam at Craigie bridge, that it concerns itself with a section where striking topographical conditions make practicable very handsome effects, and with a section in which property values are, on the whole, relatively low. From the State House, and hence from the Boston Common connections, Mr. Child's scheme supposes a monumental tree-shaded avenue, 200 feet wide, leading directly northward, passing down the slope of Beacon Hill and crossing the lower Charles River basin by a substantial bridge. The beautiful north façade and dome of the State House would crown its upper end, circular plazas would emphasize the river intersection, and across the river would be, on a new site, the North Station. A tunnel would connect this with the South Station, while scenically there would be offered "a fitting and dignified entrance to our city for the thousands of travelers and commuters entering the city from the north and an opportunity of seeing and appreciating our noble State House." Beyond the station, the avenue would cross some freight tracks by a viaduct and then divide into two less pretentious avenues, one going to Sullivan Square and the other to Bunker Hill. New public buildings, as City Hall and Court House, are ranged along the river, on the Boston side, and there are promenades on either bank, while transverse or diagonal avenues that knit the whole plat together promise a very sumptuous effect.

MAYOR McCLELLAN ON CITY BEAUTY

The presentation a few weeks ago of a bronze medal to Mayor McClellan of New York, by the American group of the Société des Architectes Diplomés par le Gouvernement de France, for his work in behalf of the beautifying of the city, was a notable event. It was threatened by two dangers, however. On the one hand, there was a likelihood that it would be too much overlooked or made light of, in spite of the rather distinguished company; on the other, that it would be taken too seriously, for New York is not yet a model of civic beauty. But Mayor McClellan himself saved the day, accepting the medal with a speech so graceful, so nicely balanced between earnestness and lightness, so charged with good sense pleasantly put, that the scoffers were silent, and with all the dinners of New York this one was not overlooked. In part, he said: "The mediaeval ascetic and the seventeenth century puritan tried to convince mankind that beauty and righteousness were antipathetic. But his wholesome natural common sense forbade mankind to be convinced. We may and doubtless do respect the excellent but unattractive woman while the beautiful saint receives our warmest admiration. Where Lucas Cranach and Wolgemuth may have frightened an occasional backslider into righteousness, Gentile Bellini and Titian called hundreds of sinners to repentance. As with women and angels, and saints and pictures, so with cities. Our fellow-citizen sits him down to sleep the summer day upon a bench in City Hall Park. If he awakes facing the north you know that he will slouch away a better man for having looked upon that little gem of the Colonial—our City Hall. But if he awakes facing the South, and gazes upon the Post Office, can you blame him if he goes away with homicide in his heart? Venice lived a thousand years. During her last two centuries of life she was only kept alive by the love and devotion of her children. Do you suppose that they would have felt for their mother as they did, had she been the architectural ancestress of Hoboken or Jersey City? Something more is needed to make the happy city than health and wealth and wisdom. The citizen may feel a just satisfaction in the thought that in his city the death rate is low, the streets clean, and the water pure. He may be snugly complaisant in knowing that rents are high, food dear, and bankers and brewers rich. He may beat his breast with pride at the

thought of the wisdom of his town, that all her people are clever, her schools excellent, and her newspapers omniscient. The city healthy, the city wealthy, and the city wise may excite all these emotions, but it is the city beautiful that compels and retains the love of her people."

PLAYGROUND PROGRESS

The might of the playground movement, which has recently grown so rapidly in the United States, is well brought out in an article prepared for Charities and The Commons by Henry S. Curtis, who is secretary of the Playground Association of America. He notes that in the month of November, which must certainly have been an off month for that sort of effort, a million dollars was spent for playground sites. If only that average were maintained, it would make a notable record, for, as Mr. Curtis says, "this is a new bill for the United States." But if the November total was so high, the average for the year is probably more than a million a month. Says Mr. Curtis: "There was a time, and not so long ago either, when only a favored few could go to school. Now the chance is open to all, and whether the child wishes it or not, to school he goes. And now we say that not only must every child go to school, but every child must have a chance to play as well. Yes, a chance to play—not as we see play in the streets and alleys, but in playgrounds fitted up with proper apparatus and supervised by trained instructors." The Playground Association of America is working to have every city in the United States authorize the drawing of a playground plan, under which no city child shall be more than half a mile from a playground. As the basis of this plan it is trying to induce every city to make an inventory of all possible sites—parks and other public grounds, abandoned cemeteries, marshes or ponds that might be filled in, or vacant spaces that might be purchased. In this connection, it is interesting to note that the playground committee of the New York Municipal Art Society (Harold A. Caparn, chairman) has issued a report which emphasizes among other things the need of developing playgrounds with artistic consideration. "The buildings," it says, "should be of as good design and material as possible, and there should be at least a fringe around the whole of trees, shrubs, and grass, which should be kept in as good order as any of the other parks. This committee, judging by the successful example of DeWitt Clinton Park, which contains both playgrounds and children's gardens, is strongly in favor whenever possible of uniting playgrounds and children's gardens, thus bringing together two of the most healthful branches of education and recreation, which would be mutually helpful. . . . Like all reformers, and like all really practical people, we are pursuing ideals. We think it would be a valuable reform if builders of tenement houses could be compelled to make playgrounds on roofs." This is an idea for model tenements at least.

R. A. CRAM ON CITY BUILDING

The Fairmount Park Art Association of Philadelphia has published in two illustrated forms—in a small pamphlet containing the proceedings of the thirty-sixth annual meeting, and separately in a large and handsome pamphlet—the report of the local commission employed by the Association to study the entrance of the Philadelphia Parkway into Fairmount Park, and an address delivered by Ralph Adams Cram when the report was submitted. The subject of the address was the "Architectural Development of Cities," and to the general purposes of review it is rather better adapted than is the report. The latter, in explaining a compromise plan that involves a slight variation from that on the city map, has to do with technical considerations that arose from purely local conditions. These must be exceedingly interesting in Philadelphia, and are full of suggestions if one knows the ground, but are not easily summarized for the general public. Mr. Cram's address was introductory. He noted that our cities, and some of those of Europe, "were laid out and built up at a period when the instinct for beauty was dead, deader than it ever had been before in the history of civilization." But it was, he thought, "an eloquent commentary on the practical value of beauty that its loss should have meant the building of cities that are not only unbeautiful, but also impractical." As in some of the foreign cities, so "with us the tide has turned, and the first evidence of the awakening of a civic sense was shown by the development of the park idea." With all its merits, he notes that this was "a very narrow way of looking at things, now fortunately being discarded in favor of a broader and more inclusive view of the necessity of cities and the duties of citizens." Reviewing some of the work done and planned, he says: "Let us note

that all these great American schemes for municipal development, while possessing an essentially aesthetic quality, are actually primarily utilitarian." He strongly urges that cities be given the right—as Philadelphia has been—to take land on either side of an improvement and to place restrictions on whatever may be built there. "If you have a street a mile long," he says, "and fifty, eighty, or one hundred feet wide, and then allow all kinds of snaggle-toothed buildings, ranging in height from one to twenty stories, to impose their erratic skyline on your great street, you have destroyed all the glory thereof. . . . The citizen, as an individual, must be made to understand that, when he is building on such a street, he is not acting solely for himself, but rather as a part of a thing that is far greater than he is—of the community as a whole, the civilized society of which he forms one small, component part."

PLANS FOR COLUMBUS, OHIO

The report on the improvement of the city of Columbus, Ohio, which was recently submitted to the local Board of Public Service by a commission composed of Austin W. Lord, of New York, Chairman; Albert Kelsey, of Philadelphia; Charles N. Lowrie, of New York; Charles Mulford Robinson, of Rochester, Secretary, and H. A. MacNeil, of New York, has been handsomely published, with many illustrations. The Commission has been at work for a year, and the report is the most elaborate that has been issued in several months. Opening with a brief introductory chapter on the interesting history of the movement in Columbus which led to the appointment of the Commission, the report proper is divided into three discussions. The first deals with general suggestions, for the improvement of the city as a whole—with the street plan, with the problems of transportation, with street utilities, with the planning of the suburbs, etc. The second deals with the park system, plans for which are worked out most completely, both as to the various units and as to their connection. As Columbus now has very little in the way of parks, and not only needs much, but is conscious of the need, it was possible for the Commission to make a park plan that should be a model for an industrial community. It considers the social requirements of every section of the population as well as the aesthetic effects. If this plan should be carried out in its entirety, Columbus would present a very interesting and instructive example of what parks can be in a scientifically developed city. The argument with which the park plan is presented is full of suggestion. The third section is devoted to the State and Civic Centers, which it is proposed to develop around the Capitol. This is a very elaborate project, but not too elaborate for the great State of Ohio to authorize as a setting for its Capitol. The plan contemplates a long mall, crowned at one end by the State House, crossing the straightened and nobly embanked river by monumental bridges, and terminating in a great armory beyond. An interesting feature is the use made of tall commercial buildings. The present Capitol park abuts on High Street, the principal business street of Columbus. The mall has to begin at High Street, but on it—opposite a corner of the Capitol park—is a new skyscraper. The Commission frankly accepts this, proposes the private erection of a similar one on the opposite corner, and in its scheme treats these as pylons to mark the beginning of the mall. Back of the State House, it arranges a civic center, with City Hall, Post Office, etc. The illustrations in the report include pictures of pertinent foreign work, as well as diagrams, perspectives, and photographs to illustrate the Columbus plans. The photographs of natural scenery around Columbus, showing the selected park sites, reveal a quiet and romantic beauty the existence of which most visitors to the city, or travelers through mid-Ohio, would not have suspected. Three streams come into Columbus, and the Commission makes full use of these watercourses in developing parks and parkways. The report has been well received, and while it is not expected that a great deal will be done at once, it furnishes a plan for the city to work toward through a long series of years. If in another generation or so the State of Ohio has not a convenient, beautiful, well planned and imposing capital city, the reason will not be that the people have not been told how to get it.

STATE FAIR PLANS

There has been published the drawing showing a bird's eye view of the permanent grounds of the New York State Fair at Syracuse, as they will look if the plans of Green and Wicks, architects, of Buffalo, are adopted. These are the premiated designs, and are interesting as raising a State fair to quite the spectacular ambitiousness of an exposition—an ambitiousness that really is

not unreasonable, once the location be permanently fixed. In fact, that condition granted, the construction and landscape work can be made of substantial character; and the State fair might by degrees go even beyond the temporary exposition as regards impressiveness. The plans of Green and Wicks promise three great pictures: The Empire State Court, 500 by 700 feet in size and bounded on one side by the main entrance to the grounds; the Horticultural Court, which is separated from it by a peristyle 500 feet long, opposite the main entrances to the Empire State Court; and a parallelogram bordered by various harmonious structures that is suggestive of the Mall under construction at Cleveland. The Horticultural Court, it should be explained, while cut off from the vast Empire State Court by a straight peristyle, has the Arts, Horticultural and Women's buildings grouped around it in an exact semi-circle; so that the three courts are entirely distinct in the pictures they will offer. The race track is put where it does not force itself upon any of these compositions. The detail that would seem most to invite criticism is the size of the Empire State Court. Entering the fair grounds and beholding at once this great space, the visitor might feel pretty lonesome —but in one day last year there were 60,000 admissions, and if the fair is developed on the grandiose scale these plans propose there can be no question that the attendance would mount up prodigiously. In this connection it is interesting to think what would be the educational and artistic influence of harmoniously and beautifully developed State fairs. Would they not do for the smaller communities in each State something like what the Chicago fair did for the nation—with this difference, that their lesson would be reiterated year after year? If anything of that sort were the effect, what might we not look for in the better planning of towns and locating of pubilc buildings? The words of Governor Hughes to the Legislature, in reference to the plans, are worth repeating, for their good sense, broad outlook and aesthetic appreciation. He said: "I recommended last year that plans should be made for the comprehensive and adequate development of the State Fair in a manner which would avoid haphazard or ill considered improvements merely designed to meet temporary exigencies. The development, of course, must be gradual, and without extravagance. But by making substantial progress each year, so that what is done will fit into a suitable, general plan, economy will be promoted and the result will be worthy of the State."

DISCUSSION OF CITY PLANNING

The February magazine number of "Charities and The Commons" was made a big special number devoted to city planning. It was put in editorial charge of a man who is active in this work, and was profusely illustrated. It was the first copy of a magazine in the United States to be especially devoted to this subject, though in Germany there is a monthly which deals with nothing else. The editor, to avoid any special pleading, divided his articles into two main groups: One, on the theory of city planning, the articles in that group describing the benefits of a good city plan from various points of view; the other, on the practice of city planning, the articles therein describing work undertaken during the preceding twelve months—a very remarkable record. Not one of the articles is by a man who himself has professionally done any city planning, except the foreword by the editor, which is brief and strictly impersonal. It will be seen that if the articles thus lost something in experienced statement, the number as a whole gained strength by the absolute disinterestedness of the testimony. And perhaps there was no loss at all, for each article was authoritative, coming in the first group from an expert in the particular aspect of municipal development which was taken as his special point of view, and in the second group from a prominent resident of the city described. Thus, under the head of the theory of city planning, the relation of the plan to the problems of transportation was described by George E. Hooker, secretary of the City Club of Chicago and formerly secretary to the special street railway commission of the Chicago City Council; that on the street as a basic factor was by Andrew Wright Crawford, of Philadelphia, and that on the civic centre by Sylvester Baxter, of Boston—neither of whom needs introduction here. The neighborhood centre as a feature was described by Dwight F. Davis, member of the public library and public bath commissions of St. Louis. The connection of the parks and the city plan was described by Henry A. Barker, of Providence, who is the father of the Metropolitan Park movement there. "The Workingman and the City Plan" was the subject of Benjamin C. Marsh, executive secretary of the Committee on Congestion of Population in New York. These are not all the articles, but they are enough to show the comprehensiveness of the review and the widespread source and authority of the testimony.

NEW YORK ART COMMISSION

The reports of the Municipal Art Commission of New York are always interesting, but they are so late in coming out that their significance is in the tendencies which they reveal rather than in their antiquated record of facts. The current report, for example, came from the printer in January, 1908. It is dated October 9, 1907, and it is "for the year ending December 31, 1906." But if one is willing to overlook the element of time, which in swift New York one always hesitates to do, the report, with its many foreign illustrations and several foreign plans, is interesting enough. At the very outset it is curiously notable that popular usage, so prone to abbreviate official titles, has in this case gone for definiteness to the opposite extreme. The body reporting is simply the "Art Commission," not, as one has to call it, the Municipal Art Commission of New York. It is stated that the number of projects submitted to the Commission in 1906 was 132, involving approximately $27,000,000 of expenditure. To make sure that so vast an amount of money for public work will be expended with artistic consideration year in and year out, instead of carelessly, is full justification for the Commission's existence. In the summary of the years from 1898 to 1906, inclusive, it is interesting to observe the rapid growth of the number of projects submitted, the last year having much the greatest number. And the growth is marked, it is further encouraging to note, in the items: "On request of the Mayor or Board of Aldermen"—showing an increasing deference for the Commission's opinion; and in "approved"—suggesting an artistic improvement in the projects submitted. The first year as many were disapproved as were approved; the last year the disapprovals were slightly less than a third as many as the approved.

A DEPARTURE IN CHURCH DECORATION

The artistic decoration of plain old Plymouth Church in Brooklyn was a hazardous, not to say incongruous, experiment. That it has been accomplished successfully, without the least incongruity, and with a satisfactorily artistic result speaks well for the good taste and talent of Frederick S. Lamb, to whom it was entrusted; and for the board of trustees and individual donors, who accepted his dicta without attempting interference. On the outside a porch in harmony with the severe simplicity of this Puritan meeting-house has taken the place of the old storm house; and within a series of memorial windows, portraying scenes in the history of the Puritan church or representing pictorially certain fundamental Puritan principles, give to the auditorium a beauty and even a Puritan atmosphere which with all its former plainness and homeliness it did not have. Of the windows, "The Outlook" says editorially: "In two respects they are, so far as we know, unique. One harmonious and comprehensive plan has been adopted, and while the donor of any window is at liberty to select from this plan the design which pleases him, no donor is permitted to form his own design. As a consequence, the whole church will be pictorially a unit. And all the pictures are human, not ecclesiastical; and modern, not ancient; no one of them goes back of the early English Puritan age, the age of Cromwell, Hampden, and Milton." In a recent address before the men of the church, Mr. Lamb is quoted as saying that underlying his scheme was an acceptance of the "universal recognition that the modern church was not meeting modern needs." To meet them, he thought, it must become modern in its architecture and its symbolism. Ecclesiastical symbolism meant very little to the man of to-day. To abolish all symbolism and give plain walls and plain windows was little better, for mere negation attracts no one. We need, he said, a symbolism which appeals to modern life and brings a message to which the modern man will listen. The speaker instanced the window representing John Hampden appealing for the Bill of Rights, and that representing John Milton pleading for the liberty of the press, the one bringing the message of political liberty, the other of liberty of the press.

MODERN BATHS AND BATH HOUSES*

While it is generally supposed that the American people are perhaps the farthest advanced in the sanitation of the home, we are compelled to alter this view somewhat when we read the facts of modern sanitation applied to the Bath and the Bath House as set forth by Mr. William Paul Gerhard in an extremely

*Modern Baths and Bath Houses, by Wm. Paul Gerhard, C. E., New York: John Wiley & Sons. London: Chapman & Hall, Limited. 1908.

interesting volume under the above caption. It appears that a report made to the American Medical Association in 1887 showed that eighteen large cities in the United States contained no free public baths whatever and only about one-quarter of the residences were supplied with bathtubs. "The need of cheap and plain public baths for the masses and for the working people of both sexes is," says the author, "therefore, apparently just as urgent here as it is in Europe." In fact, the need would seem to be even greater in our large cities than in some equally populous centers of Europe. The numerous large and splendid Public Bath Houses which have recently been erected in many of the large cities of Germany and England prove our own backwardness in this respect. The Public Baths at Hannover in the northern part of the Empire and one of similar extent and appointment at München in Southern Germany rival some of the Baths of the Romans, in their careful planning and their sumptuousness.

"In 1904 only thirty-four cities in the United States had more or less adequate provision for bathing for the people," says the author. "It is very seldom, indeed, that tenement houses have any baths; even the so-called 'model' tenement houses do not provide bathing facilities." We have, it is true, the floating river and sea baths, but these not only fail to provide for proper cleansing, but are available for only a part of the year and are often expensive to reach on account of their distance from the homes of those who would use them. This form of bath is clearly inadequate for the needs of the great public, which requires more of the type of People's Baths of which some admirable examples have lately been built in New York, Boston, Philadelphia, and Baltimore, to mention only a few instances. In the equipment of these People's Baths, Mr. Gerhard makes a strong plea for the use of the shower or rain bath as being the most suitable fixture hygienically for public bathing, providing the proper conditions for cleansing the body with the least consumption of water and as affording much the greatest capacity of use. It has been demonstrated that one shower or rain bath will do in a given time the work of four bathtubs with less danger of getting out of order. He also wisely suggests that tenement houses, especially those in New York, might be provided to advantage with such rain baths in some suitable place in the cellar and placed in charge of the janitor. This suggestion seems to us to contain a possible solution of the problem to better the physical, moral and intellectual condition of the "great unwashed" and is worthy of serious consideration in the revision of the New York building code which is now under way.

Mr. Gerhard's book is profusely illustrated with many interesting plans, containing much valuable information for architects, and by numerous photographs which, in connection with the descriptive text, should appeal to the non-professional reader. Especially interesting reading is the appendix of the book, which is a series of extracts from the writings of travelers, explorers and scientists on the art of bathing, in various European countries, in many cases translated into English by the author, who also gives much valuable information gathered from his own experience as a sanitary engineer. He gives interesting details of sanitary devices and a complete specification for a municipal bath house. An extended bibliography adds to the value of the work.

ACADEMY ARCHITECTURE*

Part II. of the 1907 issue of this interesting architectural and art catalogue has just come to hand. In the variety of the matter presented it will have an unusual interest for American architects and sculptors alike. It is a selection from the English, French and Scotch architectural societies, which do not follow the American custom of issuing individual catalogues. To our professional readers this fact is no doubt familiar and has been for many years; but there is in this publication much that will also interest the art-loving public who like to keep in touch with recent and prospective foreign building operations and works of sculpture. Of the latter there is reproduced a very representative collection of contemporary English, French and German figure and monumental work. The suburban houses illustrated should also interest Americans as they suggest an interesting comparison between the suburban house work of our own architects and contemporary work in England and on the Continent.

*Edited by Alex. Koch, architect, London. U. S.: M. A. Vinson, Cleveland, Ohio.

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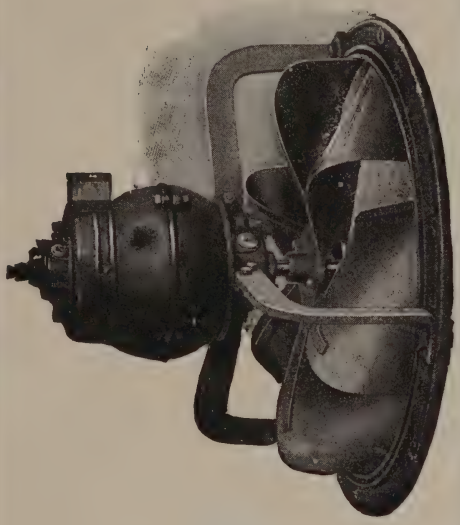

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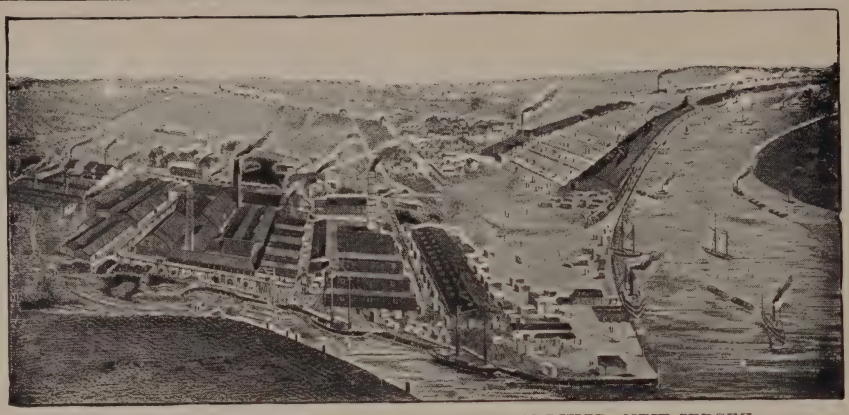

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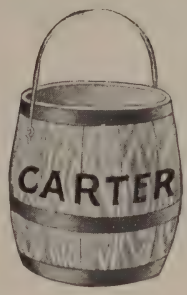

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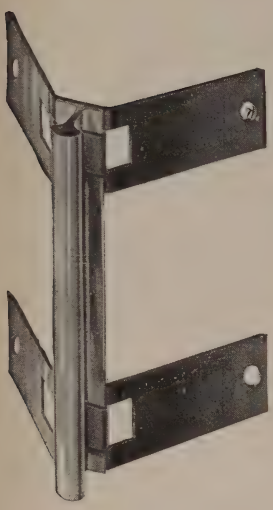

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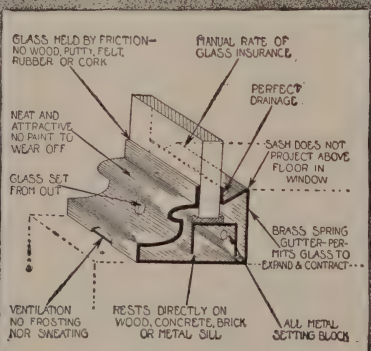

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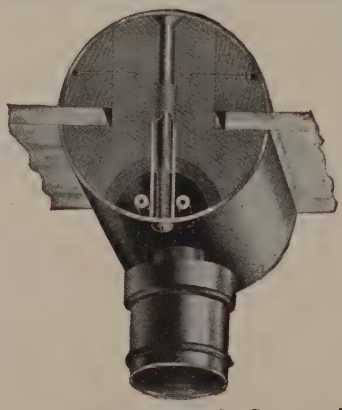

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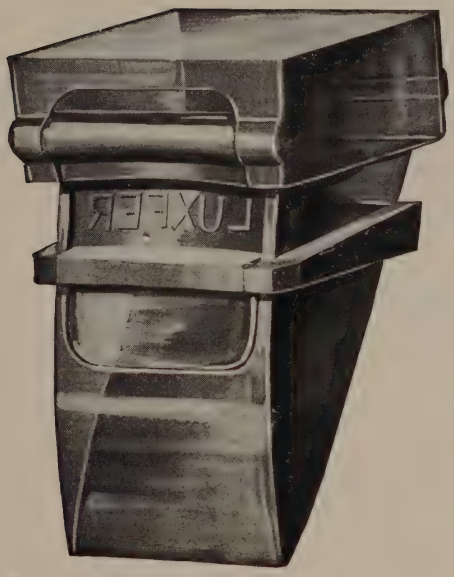

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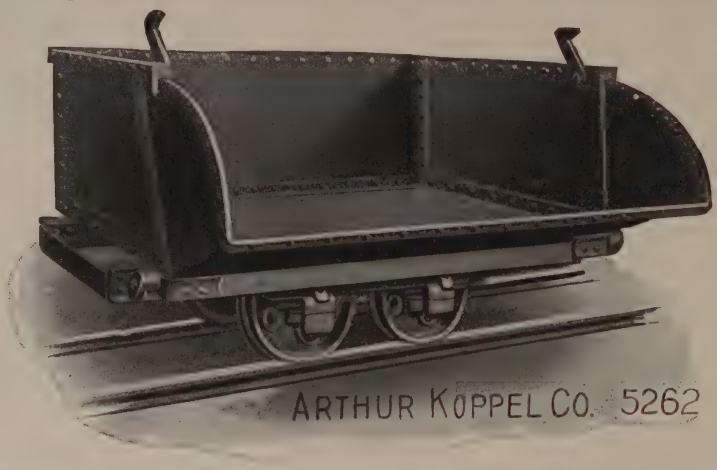

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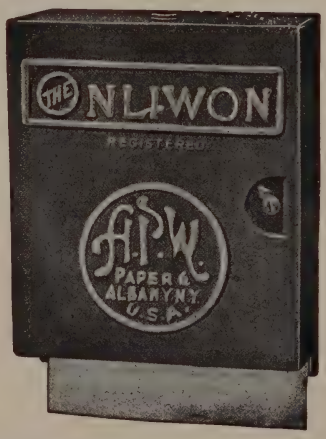

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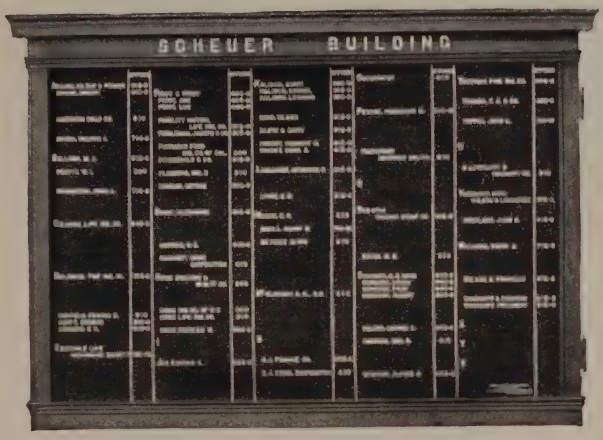

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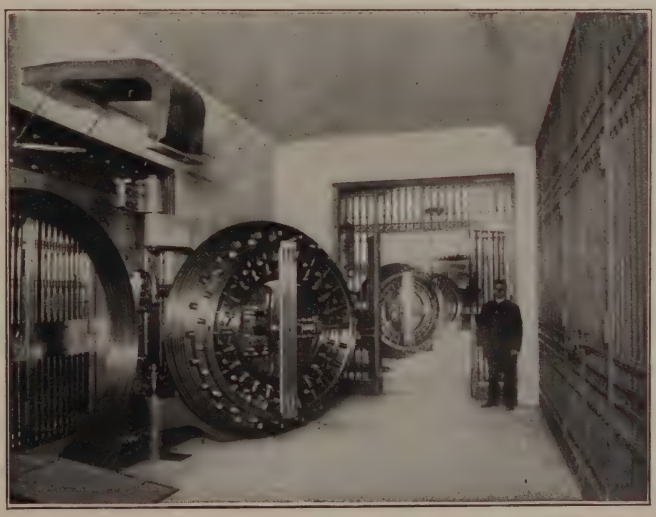

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Vol. XXIII. No. 6. JUNE, 1908. Whole No. 117.

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The
Architectural Record

Vol. XXIII JUNE, 1908. No. 6.

Our Suburban Architecture

There is no denying the fact that the standard of American architecture is raised from year to year, and there is no department of that architecture which shows this constant improvement to a greater extent than does the design of our suburban houses. This design, to a large extent, has not developed from its early beginnings which our ancestors borrowed or brought across the sea with them from England, France and elsewhere. On the contrary, it has preferred to strike out for itself on new lines, seeking inspiration under new conditions of life and environment, beginning with extreme crudeness of conception in form and in plan and gradually developing these rude beginnings in harmony with the rapid growth of our commercial wealth. As commerce increased in volume it brought in its wake, as was the case in Roman military conquest, a pomp and a luxury that was practically unknown elsewhere. Merchants prospered, grew rich and sought an interesting and diverting way in which to express their prosperity and enjoy their gain. Their newly found wealth led them into luxurious ways, increasing the number of their material wants and tending in general to make their daily life more complex. Such conditions the architect and the artist were called upon to meet and such tendencies they must express in the houses which they were called upon to design for these commerce loving people who demanded something grand, something new, something which others would not be likely to excel in extent or equal in magnificence; expense, not to say economy, was not their object, so long as they were enabled to make the splendid impression which they considered an indispensable part of their position in life. So rapid has been the commercial development of the United States in the last decade that the progress of its architecture has been unable to keep pace with conditions, and especially noticeable is this backwardness in our urban architecture, which was not so fortunate in its emancipation from customs and forms which were no more to find favor, as was our suburban architecture which stands to-day as a consequence, as perhaps the only substantial accomplishment for which we can claim any measure of credit. But even suburban architecture has failed to progress fast enough to keep apace of the requirements and faithfully reflect present national tendencies. This statement is made, however, with all due allowance for what has been accomplished in this field in some instances in widely scattered localities. We speak of the average standard of performance.

Improvement in suburban architecture has come about to some extent, despite what we might call its indigenous development, through the training which Americans have obtained in Europe. This training has not meant merely the importation into our architecture of foreign forms and tradition, it has acted, in some instances, in quite the opposite way of establishing in its possessors a

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new standard and in giving them new inspiration and artistic hope. While our domestic architecture has thus obtained some real inspiration from contact with tradition, our public and commercial art has been affected very differently and to a large extent detrimentally, and it is coming to depend for its salvation more and more upon the very commercial conditions which called it into being. Commerce introduced and made steel available for building purposes; the steel skeleton at once came into use; machinery has developed and been greatly cheapened; the result has been a renascence of concrete and tile. Commerce has made vast inroads into our timber supply, which, imperfectly protected, is rapidly bringing the American people face to face with a wood famine which, as far as we can at present judge, concrete and tile will help to alleviate more than any other materials. Thus commerce destroys a building material and circumstances enable it to provide a ready substitute; it destroys while it conserves, but the far seeing men of the nation fully realize that the present process cannot go on indefinitely, for there must come a time when the waste will come to seriously overbalance what can be conserved. Such wise individuals are beginning to recognize the fact that our economic salvation lies in a policy of protection and conservation, not so much in a production of always something new and much better than what we at present possess, but in a judicious guarding and application to our needs of what we have, a sort of higher development of the present immature stage rather than a seeking after new and virgin fields of endeavor.

This economic condition is, to a certain extent, reflected in our architecture, and, perhaps it is not an exaggeration to say, in all architecture, which, in this sense faithfully reflects social and economic tendencies the world over. Just as society feels that it has seen everything, heard everything, done everything, so our architects are apt to feel that everything in the field of architecture and art has been said, seen and done, and that in order to accomplish progress it is necessary for them to break away completely from all tradition and the basic principles of humanism in their art. They feel a need to strike out on new lines and force their work to grow along the lines of mathematical reasoning rather than in accordance with the gentler, though perhaps less exact, course of natural selection. Much of our architecture bears this stamp of artistic reasoning in which the French have led the artistic world for many generations. Our foreign-trained architects have brought this influence to the United States with them, and the influence which is spreading through their works is at present recognized as the most potent force in our artistic development, and one which is both beneficial and detrimental in its effect upon our architecture. Now, in a sense, the adoption of much of this *architecture raisonnée* expresses the wastefulness of American conditions of life, the love of cheap, tawdry display and novelty at any cost. We do not mean to assert that French art is responsible for its American version; we refer herein only to the effect of its influence, not to the art itself.

The condition of our suburban architecture before the advent of the English and French influence was, of course, such that in its abject, artistic poverty any extraneous influence was welcomed, and it is not to be gainsaid, furnished a certain amount of new inspiration upon which it was free to grow according to its own needs and inclinations. True, we had the Colonial. But what have we done to continue its development? When we speak of American suburban architecture we do not, of course, mean to assert that Europe has not contributed its share of wholesome influence to its foundation. What we do mean to say is that the American method of procedure, the point of view from which its problems are attacked, is still largely foreign. Its forms may be some of them of French importation, but they are just as likely to show their origin to England or Germany, to Belgium or Holland. These forms, regardless of their origin, are arranged, expanded or compressed

into combinations to satisfy certain processes of reasoning. In short, they are regimented and reasoned into an architectural mass. When one speaks of suburban architecture being regimented one refers chiefly to methods of planning, the importance of establishing axes in plan and the general symmetrical idea which is peculiar to French formal design. The application of formal design to country architecture is, of course, limited by the more impermanent character of the buildings; but, at the same time, their greater latitude of extent invites formality.

But while the attitude of our architects towards their design problems may still be, to a large extent, an unreasonable one for American conditions, yet there is noticeable in widely scattered sections of the country an earnest attempt to alter this attitude to a more frank acknowledgment not so much of our artistic independence of the old world, and its artistic tradition, but of the necessity of looking native conditions squarely in the face and in adopting from foreign performances what is appropriate to and consistent with these conditions, and most important, perhaps, of adopting that which gives promise of offering American architecture suggestions for future development and growth. The frankness in design to which we make reference above has been confined thus far almost entirely to our suburban architecture which has consequently acquired something of artistic merit.

In the March issue of the Architectural Record there were shown a large number of suburban houses exhibiting, in some degree, the kind of artistic striving to which we allude. Many of these designs, no doubt, contain much for which the architectural fraternity, as a whole, would hesitate to stand sponsor, but the general basis of the work cannot fail to commend itself to architects and the result to the prospective builders of homes. It may not be possible to acclaim, as invariably beautiful, the products of such labor, but the measure of success which has already crowned its efforts offers encouragement for the future of American architecture.

Whether this success has been achieved, as some of its authors insist, by getting at what they call the fundamental principles of all design and art; by eschewing absolutely the forms in which architecture has found its expression in other lands at other times, and by composing new designs out of the natural forms which are indigenous with the site and conditions, whether this has been their method of procedure does not particularly interest the public nor does it especially concern their contemporary professional brethren. After all, who can analyze the course of reasoning, if, indeed, one may call it reasoning, by which a beautiful design, a work of art, has been achieved. The explanation of a work of design can be but speculative, and such an explanation is valuable in proportion as it is suggestive and instructive. Leaving out of consideration then the mental process which has produced what is admirable in the work to which is referred above, it is the result alone which interests the spectator.

Nor can one agree today with those who persistently maintain, in matters of art, that beauty and truth are synonymous, for those who are guided by this principle soon reach the position where these two qualities refuse to co-operate and compromise is inevitable. Even if they fail to realize the nature of the difficulty and its cause, they instinctively make mutual concessions between conflicting forces. The development of art and especially of architecture has ever been a history of compromise between what, on the one hand seemed the most obvious and straightforward thing to do, and on the other of certain practical limitations and forceful economies which could not be disregarded with impunity. No, beauty in art is not truth nor vice versa; in fact, the case might be more emphatically stated by saying that in art the end attained justifies the means, if truth figures prominently as a determining factor so much the better, but its absence should not, in the mind of the beholder, effect his verdict as to the quality of the result.

Bryn Mawr Park, N. Y.

FIG. 1. HOUSE OF SULLIVAN W. JONES, ARCHITECT.

The Modest Country Home

Perhaps there is no sort of habitation about which there exists a greater curiosity in the minds of the great American middle class than one finds to-day in regard to the suburban or the country house which can be obtained at a moderate expenditure. It is one of the most popular topics of the pictorial magazines. Even the daily newspapers have touched upon the subject to some extent. While such a ready response to the popular demand for information about home-building is gratifying, one cannot but reach the conclusion that the greater portion of the effort to meet that demand fails utterly of serving a useful purpose. One cannot deny that the subject, as presented in these popular journals, is interesting and affords considerable entertainment, having won many ardent adherents; but neither can one escape the conviction that, before the intelligent building public will be in position to acquire substantial ideas of the conditions which confront the individual who contemplates building his family a suburban or country home, he will be compelled to unlearn much that he has gathered from such sources; that it will, in fact, become necessary for him to place himself in the humiliating position of one who, while he has a definite and important part to play in the transaction of building, must nevertheless be content to place himself at the mercy of expert advice on many matters which popular fiction has led him to believe are within his province.

Lack of honesty, to which such discussions generally fail even to allude, is one of the most obvious drawbacks to a higher standard of planning and designing in our modest country houses. The owner would have his house planned and designed as though he were building chiefly to afford his friends an interesting and diverting place in which to hold social intercourse. His real purpose, namely, to provide a comfortable home for his family is forced into the background, and in place of the few roomy chambers which his domestic establishment requires, he permits his house to be divided up into a greater number of smaller rooms, none of which is adequate to serve, with any measure of success, the purposes for which it might, under other conditions, be intended. Acordingly, one encounters parlors and libraries, sitting rooms and dens all squeezed into the meagre compass of a space of twenty-five by thirty-five feet or less, a mere piece of affectation. The prospective owner of such a house could do nothing better than to take to heart those lines of Shakespeare in Polonius' advice to his son:

"But this above all,—to thine own self
be true"

It is a lack of honesty to himself and to his family that is responsible for the often ridiculous miniature mansions which are depicted in so many of our small suburban houses. He must not only be honest with himself and his friends, but with his experts, whom, of course, it is useless to try to deceive. In stating his conditions he must be willing to acknowledge and state his real requirements without being unduly influenced by considerations which, in reality, have no bearing on his case. It can profit such an individual little to attempt to model his needs after pictures of Californian bungalows or New England farm houses. Such a course is as foreign to his training as the result is to his needs, and the result surely is not difficult to detect in the abortive attempts at composite designs which are so persistently familiar to suburbanites.

A force which is responsible for much of this influence thus far, so detrimental to the standard of our suburban design, is the popular but dangerous tendency which assumes that there exists a short cut to all popularly imparted at a very small outlay, in time and in money. The doctrine which one hears preached so much in commerce: "Do it yourself with our directions, and

save time and expense" has very seriously invaded the territory of American architecture and has led the public to assume an attitude in relation to matters of architecture with which it has no right to concern itself.

The building public has, as a consequence, lost the advantages of its position by virtue of failing to perform its proper functions.

Instead of studying its part and acting it conscientiously and legitimately, it prefers, instead, and is encouraged in its course, to usurp the powers of technical and mechanical activities which, in its hands, become the dangerous tools that produce the comedies and tragedies of our suburban architecture. According to the recommendations of much of this doctrine architects and builders are, to a client, merely expensive and dispensable commodities, who are, in consequence, regarded by the prospective owner as obstacles to be overcome, rather than as the legitimate agencies through which alone he is enabled to get the maximum result for his money. And the smaller the house and the less expensive the more baneful seems to be the effect of the owner's attempt to do most of his own designing and to exercise personal supervision over its construction. A single experience, however, is generally sufficient to convince him of his error. He then realizes that he is simply passing through a preliminary and experimental stage which the architect and the builder are able to experience by proper training without the costly and disastrous effects which are an amateur's lot. As a result, such an experiment generally leaves him in a confirmed condition of disgust with everything that pertains to

FIG. 2. STUDIO OF MR. H. D. MURPHY.

Winchester, Mass. Robert C. Coit, Architect.

building. If he has the courage to seek another domicile it is usually a ready-made affair that he chooses, preferring to risk the chance of getting something ready-made which will admit of altering to suit his purpose rather than face again the unknown realm of ideas which his first experience has convinced him he is incapable of mastering. He is now helplessly at sea and glad enough to grasp at a straw to save himself. This little play of amateur house-building has been acted so many thousands of times that it is really surprising that his kind continues to fail to see the light. But the bulk of current work shows only too plainly that his successors are still laboring under the same delusion.

To show that it is not impossible to do the thing properly on an inexpensive scale, we illustrate the following houses, which for variety of design and material are fairly representative of what might be the quality of performance for the modest suburban or country home. Figure 1 is the home of Mr. Sullivan W. Jones, an architect, and is situated at Bryn Mawr Park, New York. The design consists in a picturesque treatment of gable roofs, in which the large rough stone chimney serves to relieve a possible monotony. The house is absolutely devoid of ornament of any sort, and the materials employed are inexpensive, but characteristically and effectively used. It is to be observed how the architect has softened the penetrating effect of his windows and made them mere decorative spots in the walls by minutely subdividing the panes of glass. The strip of roof which runs across the front at the base of the main gable is effective in tying the chimney to the main mass of the house. Figure 2 is the studio of

FIG. 3. COTTAGE ON ESTATE OF MRS. GEO. E. WOOD.

Salisbury, Conn. Mann & McNeill, Architects.

Mr. Herman Dudley Murphy, at Winchester, Massachusetts, an artist, who has also paid considerable attention to artistic picture frames. It is an extremely inexpensive structure, though more formal in treatment than Fig. 1. Here the attention is directed chiefly to the walls, which are covered with plaster on a wire-lath foundation and interrupted at the corners by wooden posts which run to the eaves and are emphatically stained. The garden is cleverly tied to the studio by means of the picturesque lattice screen which shows on the left of the picture. Figure 3 illustrates a cottage on the estate of Mrs. George E. Wood, at Salisbury, in Connecticut. In this cottage the architects, Messrs. Mann & McNeill, have rendered the familiar type of small New England farmhouse, but with sufficient modification and interest of detail to give it an unexpected charm. An attractive feature is the design of the porch-supports and roof, which gives the main gable just sufficient flexibility of silhouette to soften the inevitably hard roof lines.

It is seldom that a small suburban house depends very much for its effect upon color and detail, but the next example illustrated, Figure 4, a cottage on Oak Road at Tarrytown, New York, is an exception to this rule. For the first impression is of brilliant contrast between the clean white of the walls and the dark shingles. A second inspection reveals an unusual amount of detail in the form of minute mouldings. In Figure 5 we have a type of long, low gambrel-roofed house, which, at the hands of a less skillful designer than Mr. Wilson Eyre, its architect, might have resulted in an uninteresting and commonplace composition. The way in

FIG. 4. A COTTAGE ON OAK ROAD, TARRYTOWN, N. Y.
Ewing & Chappell, Architects.

which the overhang of the roof has been supported aesthetically on wooden brackets introduces a feeling of grace, where the disagreeable effect of too much roof for the size of the house would otherwise have been remarked. The placing and arrangement of roof employed in the large dormer is especially worthy of note; it is also to be observed that the architect felt the necessity of even more securely fixing this dormer, which he has accomplished by breaking out the gabled hood over the entrance and butting its ridge against the wall of the dormer under the windows. The floored stone terrace, which presumably is used as a veranda, deserves notice for its appropriate and sufficient handling. Figures 6 and 7, like Figure 1, illustrate the home of an architect, Mr. Henry V. Kirby, situated at South Orange, in New Jersey. Two views of this house are given chiefly to show what different impressions may be produced by a change in the point of view. The limitations of photography are here apparent, proving that the only way to really know a house is to go and see it. The attractive natural setting of Mr. Kirby's house, and the way in which the most has been made of its advantages, deserve mention.

The next two illustrations, Figures 8 and 9, illustrate a very different problem in suburban house-designing. In this case the architects, Messrs. Hill & James, were required to design a house on a restricted treeless plot situated on a slope. Figure 8 shows how advantage has been taken of the falling grade to accommodate a basement and an extension, making the house, in that part, four stories in height. To compensate for the lack of a natural background,

FIG. 5. HOUSE OF MR. E. A. CRENSHAW.
Chestnut Hill, Pa. Wilson Eyre, Architect.

FIG. 6. HOUSE OF HENRY V. KIRBY, ARCHITECT.
South Orange, N. J.

FIG. 7. HOUSE OF HENRY V. KIRBY, ARCHITECT.
South Orange, N. J.

FIG. 8. THE ANGIER HOUSE.

Quincy, Mass. Hill & James, Architects.

FIG. 9. THE ANGIER HOUSE.

Quincy, Mass. Hill & James, Architects.

FIG. 10. SEASIDE COTTAGE OF MR. E. M. BLUNT.
Marshfield, Mass. Thomas Atkinson, Architect.

FIG. 11. SEASIDE COTTAGE OF MR. E. M. BLUNT.
Marshfield, Mass. Thomas Atkinson, Architect.

the architects have found it necessary to provide the greatest amount of variety in the silhouette of the roofs and to attract attention at the same time to the plain cement wall surfaces, whose only visible adornments are the massive projecting second-story window sills, all the other sills being architecturally negligible. This problem of the barren restricted site, which is apt to occur with increasing frequency, presents the maximum of difficulty to the designer. The house must be equally well designed from all points of the compass on account of its exposed position, while it can rely on little or no help from its surroundings.

Our last example, shown in Figures 10 and 11, is different again from any of the other houses in this series. In the first place, it is, perhaps, by far the least expensive of all, while it is also the least permanent, being without a cellar and of the lightest stud-frame construction, without interior wall finish. It is a seaside cottage, situated at Marshfield, in Massachusetts, not intended for occupancy all the year round. The grounds, being in an unfinished state, cannot be fairly considered in relation to the house. In fact, the house itself is not a home in the sense of a permanent domicile, but it has been introduced here because it contains suggestions of what may be done by a competent designer, who has but a little money with which to obtain a pleasing effect, a task which, it need not be pointed out, presents peculiar difficulties and requires frankness in the use of materials, and which is so rarely appreciated.

A BROOKLINE HOUSE FINISHED IN PLASTER.

Brookline, Mass. W. G. Rantoul, Architect.

Villa Nova, Pa. HOUSE OF MR. P. H. MORRIS. Brockie & Hastings, Architects.

The charm of the right kind of house among trees. A little more planting along the base and perhaps carried out to the steps would complete the place as far as the picture is concerned.

Treating the Grounds About the House

Mr. Howson Lott of Lonelyville, N. J., or Rye Neck, N. Y., rises at six thirty or seven of a wintry morning, catches the seven forty-one or the eight eleven on the Delay, Linger and Wait, or the New York, Long Island and Hudson River Railroad, spends thirty to sixty minutes or more on the train, wiling away the time, it may be, as he peruses a satirical description of himself and his ways written at so much per line by a dyspeptic newspaper man in a ten by twelve flat overlooking an inner court. Before his journey is ended he must cross the river in an atrociously stuffy ferryboat or take a car down town. His day's work done, he reverses the process, having spent probably from two to three hours or more of the day in traveling. Why does he do it? Because it is worth while. He is willing, despite the ridicule of our friend of the comic paper, to give up a good deal in time and trouble to get fresh air to breathe, the sight of real grass and trees in summer or real white snow in winter; to hear the singing of an occasional bird or see the whisking of a stray squirrel that has escaped the gun of the predaceous Italian, the small boy or the alleged sportsman; to raise some flowers or vegetables or eggs himself; and to feel a sense of liberty, to have a home big enough to live in with a space around it, in which the air may freely circulate; and, above all, to have an abode and a piece of the earth's surface that he may call his own.

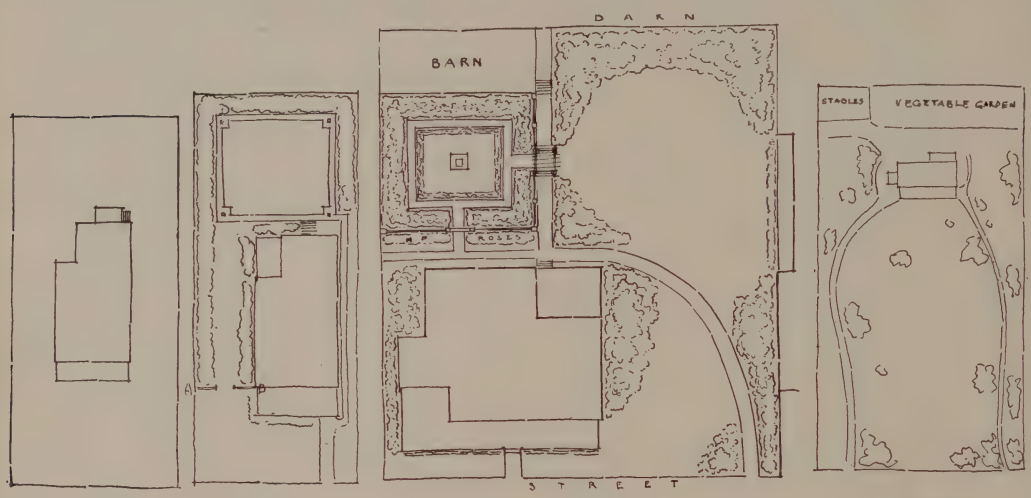
By this time Mr. Lott, contemplating building himself a home, as a rule, has got beyond the stage of simple faith in the local carpenter or the books of Mr. Shoppell as aids to designing a house. He realizes that there is something more to it than making the rooms of the requisite size, making the structure sound and stable, installing the latest electrical and plumbing devices. A little dimly, perhaps, but still effectively he feels that his house ought to be somehow an expression of himself, and that if he is to be content in it, to be unwilling to leave it in the morning and glad to get back to it in the evening, it must be imagined and perfected not merely by an artisan, but by an artist.

So our enlightened commuter has found out that whether he is going to lay out $5,000 or $50,000 on a house it is the safe and economical thing to pay someone who knows five per cent. or ten per cent. to show him how to do it. But the house is not the only thing for which he braves the daily ordeal of trains, ferryboats and cars. There is the ground on which it stands which he bought by the front foot or by the acre, but which in any case ought to be not merely a place to put the structure, but, in a sense, part of it. Since he has paid so much for the ground, he ought, as a mere matter of getting a return on his investment, to get the most possible out of it. It surely seems absurd to pay a fancy price for a luxury like a little bit of land and then to bestow so little care or thought on it that it yields a mere fraction of the return in use and beauty it ought to bring. It is like buying a $2,500 piano so that the children may practice their five-finger exercises.

Mr. Lott is an expansive and hospitable man, and will be happy to take us out to see his little place. So we run the gauntlet of the cars, the ferries and the trains and accept his invitation to dinner. He will take you round and show you his trees and bushes, discuss the mosquito problem, and as you sit on the veranda in the dusk considering one of his good cigars, he will, if you encourage him, tell you the history of his experiences with the real estate man, the grader, the builder and all the rest of them. He is a little hazy about the functions of his architect, but gives him lots of credit for the arrangement in the butler's pantry or the closets in the spare bedroom, but is inclined to think he should have kept a sharper lookout on the plasterers and tells you how much

better a job was done when some of it had to be taken out and he looked after the repairs himself. His notions about the merits or demerits of the design are somewhat vague, for Mr. Lott, excellent fellow though he is, needs educating on this subject. Whether this education is to come through the public schools or from some other source is hard to tell at present, but we shall have little sentiment in our architecture until those who pay for it get it in themselves.

If our commuter is hazy about his house, he is still more so about his lot. He put his house thus and so because—because there seemed to be no reason for putting it anywhere else; the house built, he got in the local grader who put down a cement walk, straight or curly as the case might be, smoothed off the surface, sowed some grass seed and let it go at that. Probably he left various and sundry old boards, bricks or plaster six inches under the surface so that the owner wonders in summer time why those brown patches in the lawn seem to have come to stay in spite of the sprinkler's going all day. Then Mr. Lott got in some trees and bushes from the nurseryman, set them out here and there and sat back and contemplated the result with satisfaction. All up and down the street his neighbors have been doing about the same thing; a smooth lawn, mostly badly shaped, if it is anything but flat, some trees and miscellau-



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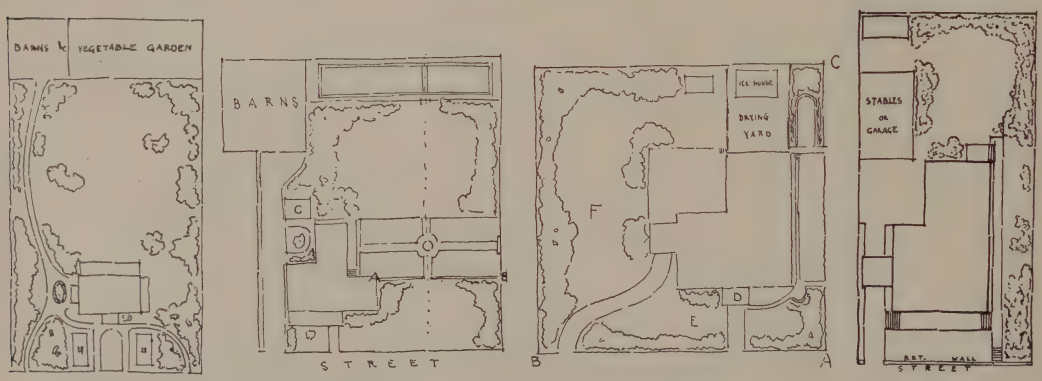
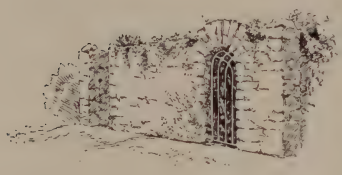


No. 3. No. 4. No. 5. No. 6.

eous bushes, probably including a Japanese maple, a golden elder, a purple barberry, a chamaecyparis plumosa aurea, and a Koster's blue spruce.

Looking up and down the street the scene is cheerful and American with low fences, or none at all, waving trees and grass shorn within an inch of its life as far as one can see. But it is all rather futile and aimless. The house and the grounds as a rule do not really fit. The best part of the latter is dedicated to the public. There is seldom any evidence of a definite scheme, a serious attempt to unite the house and lot into a home. And it is really astonishing that with all our American sympathy for the things that grow out of the ground and leaf and flower, it does not yet seem to have occurred to us that they can be combined into a scheme of decoration.

Well, what are we going to do about it? Is it not "up to us," hypercritical folk to show what better can be done, and how? Suppose we consider the case generally and discuss a few typical examples of better treatment of the suburban lot. A little thought will make it plain that the first and most important question of all is the placing of the house, for on that all the rest must depend, the paths and roads, the turnabouts, the getting-in of coal, the shape and size of the lawns and so on. It is safe to lay down the broad principle that the house should not be put in the middle of the lot. This, on the average narrow and deep lot, will usually make two largish pieces (front and rear) approximately square, and two narrow ones at the sides on the length of the house. Take a lot about 50x120 feet, as diagramed in No. 1, the commonest in Suburbania. Here nothing is very wide or narrow or deep, or very anything; all the pieces are as nearly alike as can be and difficult to treat with individuality. But suppose we take the same house and put it on the same lot, but pushed it to within fifteen feet of the street and over to the right, leaving about six feet for a hedge and a path to the kitchen. There will be a space in front of the house enough to separate it from the street; a fence or hedge of some kind can be put at A-B with perhaps an arch.



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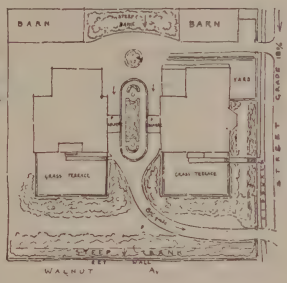

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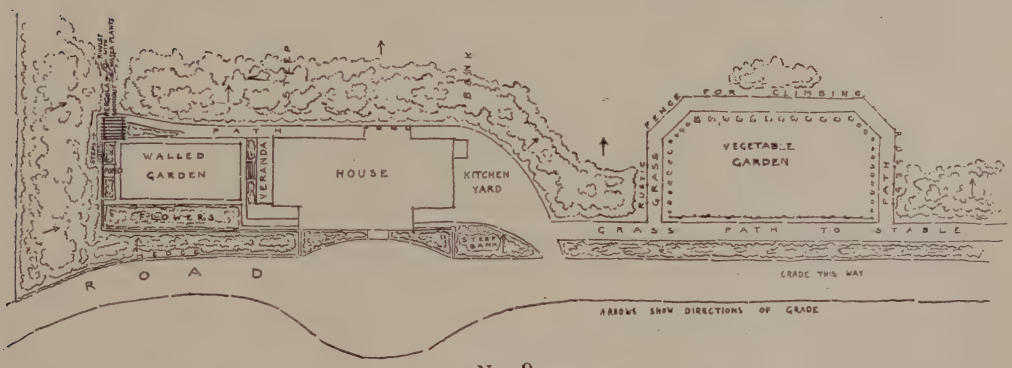


No. 9.

with roses cutting off the back part of the lot from the front and giving a long vista through foliage from C to D. There is space for some interesting planting between the house and boundary, and the back part of the lot can be treated in a dozen different ways to make a consistent whole and to utilize the space to the best advantage. (No. 1a.)

A hundred-foot lot in Corning, N. Y., contains an old-fashioned and spreading kind of house up in one corner and within ten feet of the street. (No. 2.) As part of the veranda is more retired and screened from the street, plenty of privacy can be had for the after lunch cigar or the evening tete-a-tete, and the rest of the lot cuts up admirably. There is a good lawn with shrubbery round it, the boundary on the right is a handsome stone church with Boston ivy growing on it, and at the rear of the house is a little formal flower garden enclosed with a pier and trellis fence with two entrances. The picture, on this page, will show the happy effect of leaving an old apple tree of a rambling habit to give an air to the garden by its free and unconventional growth and the sentiment attaching to it as a relic of former times and circumstances.

Here is a plan for a hundred-foot suburban lot made by adding a vacant lot to the one on which the house had been built. (No. 4.) This brought the house to one corner of the double lot, as the plan shows, and it was desired to screen the rear of the place by some kind of wall or fence from A to B, and to provide for a flower garden. The simplest solution seemed to be to fence the flower garden with a trellised wall or pergola, putting it where it would screen the rear to the best advantage. A small vegetable garden was placed at the back and arranged to give a long vista from the street through the flower and vegetable gardens to the back of the lot. A small outbuilding moved to C made an enclosed court for the rear of the house

A VIEW OF THE WOOD TRELLIS AND PLANTING OF THE LAYOUT SHOWN IN NO. 2, ON PAGE 434.

and the rest of the layout follows so as to give a small lawn in the front and a large secluded one at the back fringed with foliage for the use of the owner. This is not necessarily an ideal arrangement, but perhaps as good as can be devised under our American custom of opening at least a part of the lot to the street.

Let us take a larger lot of similar shape and from one to four or five acres. It is likely to be arranged in this kind of way: (No. 2a), assembling the house and outbuildings and back regions in the rear of the lot with a long drive to reach them and a big bare lawn with decorations inadequate or out of scale, dedicated to the public. But suppose a layout something like this. (No. 3.) Here the house and outbuildings are sufficiently removed from the street with the space in front treated formally or informally, as the case may be, the display front of the house towards the street, but the real front towards the rear of the lot, giving on a lawn that may be decorated with a boldness and on a scale proportionate to its size, and having the usefulness that comes from beauty and privacy. This lawn is free to the owner, but the other is free neither to the public nor the owner.

All these are schemes for dividing flat or flattish pieces of ground. But when the grades become steep the question becomes rapidly more complex and difficult to generalize about, as each place is a problem and a law unto itself. If a lot slopes rapidly down to the street, or if the street has been cut through an elevation so as to leave the lots high up, it is an excellent plan to put the house near the street with a terrace in front, supported by a wall on the street, then the layout may be something like this: Those sitting on the terrace or the front veranda can see what is going on in the street. themselves unseen. Here is a plan for such a lot with a little picture to show how the front retaining wall might

ANOTHER ATTRACTIVE BIT OF PLANTING AND TRELLIS WORK.

look. (Nos. 6 and 6a.) Another problem too common and less easy of solution is when a street runs up or down a hill and the houses fronting on it have necessarily one side high out of the ground and the other buried in it. Of course such a state of things ought never to arise, but it often does in this land of street planning on paper where it is assumed as a first principle that all streets must run straight and at right angles. Here is an instance. (No. 5.) The ground falls rapidly from A to B and gently from A to C. The house was designed to have one entrance from the porte-cochère a story lower than the front entrance at D. D is three feet below A, a difference in level which is concealed by the planting. Most of the slope is managed on the lawn E, while F was made nearly level by cutting down near the house and filling up along the alley.

Not common, but still to be found here and there are two houses on adjoining lots treated as one. Such a case in Syracuse, N. Y., was arranged by the writer like this: The houses were set as far back as possible from the main street merely allowing space in the rear for the stables and service road. (No. 7.) The lots were originally on a steep slope, the grade of the side street being eighteen per cent. Now for purposes of comfortable living, the steep lot must be cut into terraces in one form or another. There must be points of rest for one cannot always be digging one's heels into the ground to avoid sliding down hill. Now terraces are nothing but steps on a large scale. So on the highest step were put the stables and service road. On the next lower step the houses, the round ended garden between them and the two large square grass terraces in front of them. (Remember, gentle reader, that a terrace is not a sloping bank, but also and especially the flat space on top of it.) Then two grass-walled terraces were made, not merely to look well, but to furnish a stretch of

HOUSE OF MR. THOMAS LAMONT.

Englewood, N. J. Mann & McNeill, Architects.

This house sets well on a gentle rise and is well united to the ground by the foliage frame rising on both sides and merely opening to let the steps through. It will look even better when the shrubbery at the base of the house is better grown. Even the tree in front which cuts so large a piece out of the house adds much to the attractiveness of the picture.

turf to walk upon, and to give a sense of security and rest that a steep slope never can. Between the two houses the single approach road to serve them both rises at an eight per cent. grade. The final step, the riser of which is a retaining wall with a shrubbery covered bank above it leads down to the street. Such is the general idea, though the whole arrangement is more complex; for instance, the first step on which the barns stand was formed by excavating ten or twelve feet and supporting the cut by retaining walls; but between them is a high sloping bank, covered with forsythia saspensa, which ought, by this time, to be a fine sight. The garden between the houses is below its upper retaining wall and above its lower one, each wall being about three feet high at the highest point, while the divided road ascends on both sides of it. Much care was spent in determining the best level for the houses, and in adjusting the various grades to the best advantage, for it will be clear that in a case like this, a modification of but a single foot in the house grade would throw all the others out of gear. The houses are, unfortunately, as different in design as they can be, but the effect is successful enough to justify the treatment.

At Ithaca, N. Y., is a remarkable instance of three neighbors having agreed to pool their interests and live and build their houses on a plan like, as near as the writer can recollect, the sketch shown in No. 8.

ZANTZINGER HOUSE.

Germantown, Pa. Robson Perot, Architect.

The comfortable and home-like look of this enclosure, and the desire it excites to see what is within makes one wish to see more such in suburban America, in spite of its exclusiveness.

These three houses are similar in general design and the propriety of the treatment is more obvious. These joint stock arrangements of lots have many advantages. Each house gets the benefit, as far as effect goes, of the adjoining property, there are fewer roads and paths necessary, and the general layout is simpler. Besides, it shows an indifference to that kind of popular exclusiveness which surrounds a lot on the street or a lot in the cemetery, with

a barrier which secures neither privacy nor protection, but merely serves to mark the boundary as were it to say to its neighbor: "This is where *you stop,* my friend, and *I begin.*" We don't put walls around our front yards, as they do in Europe, to get seclusion and the use of the space for ourselves; but we put up little fences that anyone can see through and over and which merely seem to assert separation from the neighbors without real benefit.

Within the last year or two a house has been built at Stockbridge, Mass., on the top of a steep slope of six or eight acres. The entrance to the house faces the road, and the front (of the house) faces the prospect. The ground being so steep the front is much higher than the back, and the interior is ingeniously arranged so that from the entrance one descends to the lower story and ascends to the upper ones. (No. 9.)

The general plan arranges itself attractively along the upper part of the lot with many a device to make the hillside practicable to live on: First, a big step or platform is made on the side of the hill, partly dug out and partly filled to accommodate the house and walled garden. On the side of the latter nearest the approach road is a retaining wall seven feet high above the garden, on the other side is another wall about as high below it. Above the garden thick planting will presently grow up and conceal it from the street; on the other side one looks over a balustrade on to a deep valley and an extensive prospect. Not only does the lot slope rapidly from the road, but the road itself has a grade of about eight per cent. The bank in front

HOUSE OF THOMAS E. BAIRD, JR.

Brockie & Hastings, Architects.

The hedge seems too close to the house or the house too close to the hedge. One feels that an opening up to the centre with an accent in the shape of a pair of bays or other formal plants in front of the masonry strips between the door and side windows would give this house a centre which it partially lacks. Steps ascending the bank between a mass of shrubbery covering it would make a rich setting for the whole.

of the house and garden and kitchen yard is made by filling, and kept in place by grass. All along it for a depth of about forty feet is shrubbery planting, carried as far as the stable, to tie the whole plan together by a practically continuous mass of foliage as a base to the whole. The vegetable garden is placed on the most fertile and least steep part of the grounds, and near enough to the house for convenience. The corners are cut to obviate the ugliness of an angle obtruding into a sloping lawn. A fence for climbing roses encloses it on three sides, and a grass walk runs all around with small fruits, blackberries, raspberries, currants, gooseberries and apples and pears on cordons, with the central space for all the various and necessary vegetables. Through the shrubbery and vegetable garden a broad grass walk runs from the back yard to the stable.

Now we may attempt to view a few general conclusions from all these instances. On a level lot or one of moderate slope, the most important principle is to get the masses or areas of ground arranged to the best advantage; this usually means that one of them is a good deal larger than the others which should be subordinated in proportion to their uses or style of treatment, all of which depends, of course, on the location of the house. Then the treatment of the parts may be formal or informal, according to the predilections of the owner and the nature of the ground. When the ground is steep, the problem resolves itself into that of establishing the masses at the best levels and getting up or down to them as easily and conveniently as possible. There are, of course, two ways of doing this, one by a "falling-off" place, a large step or retaining wall with small steps for pedestrians, the other by a "sliding-down" place, a slope from one level to another. The examples discussed may give an idea how endless are the ways and means of using the two devices.

Of course, the chief means of decoration of making the whole composition interesting is the foliage of trees and shrubs. Some readers will be asking why I do not tell them something about this fascinating subject. But *ars longa, vita brevis!* We have already considered the first principles of arrangement of our salient parts very cursorily, perhaps, but to the extent of two or three thousand words; and it would take many thousand more to give an idea of the immensely varied materials that nature and the nurserymen have put within our reach to express our feeling for texture, form, color and size. But it may be as well to give a little advice as to the care and maintenance of one's lot whether its layout is good or bad; whether it has a coherent and obvious scheme, made by some one who knew what he wanted, or whether it was done in the usual way with the aimless and futile effect of the average suburban lot. It will be well to mention that the ill-planned or unplanned lot costs as much or more trouble to take care of than the well planned one. Most important is it to remember that the best way to keep a place in good order is to make it so in the beginning. This means thorough cultivation over all surfaces excepting the walks to a depth usually not less than fifteen inches. "Don't expect your shrubs and plants and grass to grow if there is no soil for their roots to penetrate for nourishment. Don't turn the sprinkler on those brown patches in the lawn, but dig them up and sow them again. As likely as not you will find clay or builders' litter or other detrimental stuff underneath. Replace it with good soil.

"Prune deciduous shrubs and trees when planted by cutting off about one-third of the tops. This is merely done to lessen the demand on the roots weakened by transplanting. Don't prune afterwards, excepting to cut out dead or straggling shoots. Don't on any account let the hired man slash your bushes into ugly shapes of fungi or pumpkins all alike, no matter what the variety, a forsythia exists to grow like a forsythia and a spirea like a spirea and so on down the list." Besides, this so-called "pruning" cuts off most of the flowers, and injures the bushes.

Trees and shrubs are like other plants in their desire for cultivation, food and water. Deciduous trees and shrubs all

like manure and to be watered in dry spells. "Treat your trees and shrubs, in fact, like a farm or garden crop." All shrubs are better for mulching, i. e., spreading a layer of leaves, hay or straw with some manure over the roots. "If you have any rhododendrons, kalmias, or azaleas, keep them mulched all the year round. Don't take off twenty crops or so with the lawn mower in one season and expect your grass to go on producing forever without fertilizing. You can spread a layer of old stable manure over the grass in the fall and rake it off in the spring, say about one two-horse wagon load to every 100 square yards, or you can scatter about half a bushel of wood ashes and 15 lbs. of bone meal in all to every 100 square yards, in two or three applications, beginning in the spring and renewed every three or four weeks."

"So much advice and warning about the upkeep of your lot." A few words to the wise commuter about the designing of it may be in season, for, although it is not possible to teach the art and mystery of landscape gardening, any more than of anything else, in one lesson, the reader may be saved the perpetration of some of the more common and obvious errors. "Assuming then that your house is placed to advantage, don't spoil the value of your spaces by cluttering them up with things. Don't put a round or starshaped bed of geraniums or cannas in the middle of the front lawn. Don't give way to the temptation to stick in a bush or tree wherever there seems to be a space to put it. Always try to picture your tree or bush, not as a scraggly pole or bundle of sticks as it comes from the nursery, but as a large and rampant mass of foliage big enough to sit under or to stop a gap eight or ten feet wide. If you prefer the popular informal style like most of your neighbors, remember that in a general way, the lawn is a

MRS. J. B. RUSSELL'S HOUSE.

Dobbs Ferry, N. Y. Mann & McNeill, Architects.

The narrow terrace on which this house stands is not adequate as a base. It should have been made much wider, or omitted and the ground should have sloped gently away from the house. The long line of veranda makes one wish for a long straight line of walk in front of it (if there had to be a walk), or a curve better in line and grade. The two flower beds in front and the rather futile planting below the veranda mar the general effect.

picture and the frame is foliage, and so be careful how you scatter bits of the frame over the canvas. If you have a small lot, and want to have a flower border round the back of it, make it wide enough, six or eight feet or more, and have plenty of tall growing things, helianthus, bocconia, hollyhocks and so forth at the back. In fact, what you do, do thoroughly and positively, always trying to get a clear idea first of some definite scheme, next of what it will look like when it is done."

Harold A. Caparn.

EMERY HOUSE—DETAIL.

Elmhurst, Ill. Chas. Burly Griffin, Architect.

Dedham, Mass. THE W. H. GRAY HOUSE. James Purdon, Architect.

This house is set comfortably and naturally on the ground. The background of foliage is good, but some additional low planting on one or both sides of the house would unite it better with the ground and give atmosphere and distance to the foliage at the back. The hedge in its present ragged state is irritating, and looks as though the plants were too far apart. The general look of the place makes one wish for a scheme of prim and trim formal gardening near the house, with low hedges and rectangular grass plots and flower beds.

Decorating and Furnishing the Country Home

When the house is finished constructively, the question arises as to wall decoration. Perhaps the smooth white finish or the rough sand, tinted or not, will suffice for a while, giving the home builder, who as a rule spends more than originally intended, an opportunity to think it all over very carefully. His wife perchance will be somewhat more impatient. She does not appreciate until the first winter sets in how much more important at the outset is the quality, durability and putting on of the paper sheathing, if the house is wood, or of the damp- and water-resisting protectives if the building is brick, stone or concrete. The bread-winner, however, who has to meet the architect's certificates, and who perhaps has had to pay a round premium at the monthly meeting of the Building Loan Association for his money, is the real one who finally makes the decision.

Let us assume that the house is almost ready to be turned over to the owner, the equipment so far has been satisfactory, and now for a final talk with "my architect" as to its interior embellishment, suitable furniture and wall decoration. This may, on his advice, have been postponed for a year or so to give the plaster a chance to take a normal setting after the heating apparatus has done a winter's work, and it were well so. But now, having arrived at the proper time for action, what shall be used?

Shall stencil patterns, more or less elaborate, be applied on our rough finish? Shall we select of the numerous patterns of inexpensive wall papers, with their touch of outdoors in flowered designs, or subtle conventional figures? Or perhaps we can spend a little more money and investigate the many dainty fabrics that have been successfully used for several years and have much in the way of durability and quiet simplicity to recommend them. There are canvas, burlap, Japanese grass cloth and others too numerous to mention. Some of these come specially prepared for sanitary requirements and in a variety of colors. Their textures also vary in roughness and delicacy. Many of these materials are of course not to be considered in the house of very modest expenditure where suitable wall papers which are to be had for the various apartments, in a variety of attractive designs and colors, must be used. The better stocked purse may, however, investigate and consider the claims of the woven materials which are of greater cost than wall paper, namely, tapestry, burlap, colored buckram and colored cheviot, to give a typical list.

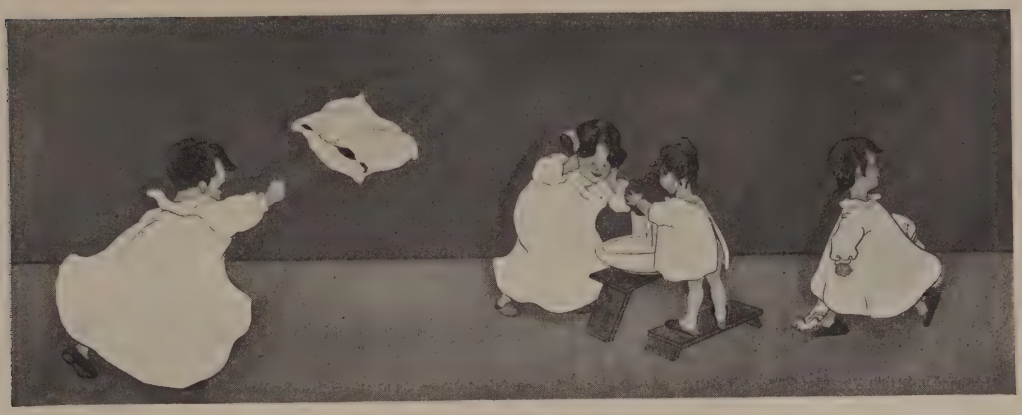
Burlap may be got specially treated, tinted, and stenciled with decorative figures, if desired. In treating these goods for wall or ceiling covering the material is thoroughly shrunk and will not change much when properly hung. The sizing on the back gives a firm body to the goods, preventing paste from interfering with the outside surface when rolled.

Tapestrolea may be hung as readily and is durable and sanitary. It may be removed and rehung, if occasion requires

it, without material damage, and when painted it may be washed down and the walls thoroughly cleaned.

Other fabrics of varying hues are fabrikona, burlap, crash, canvas, Hessian moire and printed burlaps. Fabrikona wall coverings are woven fabrics of various surface effects, dyed a solid color, or finished in a number of artistic designs for special color and textural effects. They are an aid to the simplicity and sincerity of modern ideals in decoration, giving the surfaces which they cover the textural values of the old tapestries, without the disadvantage of being costly works of art and requiring vast rooms to properly exhibit them. Printed burlaps come in a number of artistic designs, and printed borders and friezes; burlaps with lustrous or with metallic surfaces; crashes of dainty surface effects; and fabrics woven in stripes or figures, securing two-tone results, though dyed a solid color. Kordkona is similar to fabrikona, but has other colored threads interwoven in the plain field. Crash is a special cotton cloth covering, a trifle more expensive than burlap and colored by pigments worked into the fabric, which acquires as a result a soft delicate texture. This material is to be had in a wide range of stock colors, special shades being made to order. It is a plain weave and makes a durable wall covering, being almost as easily hung as paper.

Coverings such as sanitas, sanatile and leatherole, which are inexpensive waterproof wall hangings, may also be considered to advantage as decorations. Sanitas is a washable wall covering in plain colors or designs, glazed or flat finished, suitable for halls, dining-rooms, bedrooms, bathrooms and kitchens. It is claimed to be more economical than paint, and tough enough to be a good protection to the plaster against cracks or accidental blows. It will stand well under extremes of temperature. Leatherole is an imported waterproof cloth having a heavy paper backing and decorated face. It is an exceptional covering for walls and screens and an effective substitute for leather in decorative work. It is embossed in high or low relief, and is made in a variety of colors and designs, affording a range of several hundred effects, capable of application to the simplest or the most elaborate interior decoration. It furnishes a ready-made patterned groundwork, upon which can be produced an endless variety of color effects. Anaglypta, an imported wall covering, is embossed by a special process from plastic pulp. It furnishes a patterned groundwork for a great variety of color effects. One and a half pounds of oil paint will cover a twelve-yard length, and unless a very dark shade is required that is sufficient to finish it. Every gradation of shade can be obtained. A substantial relief decoration once fixed on walls and ceiling may be



entirely changed in appearance by simply redecorating the fabric, thus saving the expense of new material.

Pantasote is a substitute for leather for upholstery purposes. It consists of two fabrics united firmly together with an intermediate coating of gum, the surface coated with pantasote and embossed, giving it a finish resembling hide leather. It can be finished in a great variety of colors, or with high-relief embossing, either decorated or plain, for all purposes which leather can serve. Shade and curtain material consists of a great variety of printed and woven fabrics of different textures and qualities coated in the same manner as the upholstery goods. The coverings can be washed or cleaned and are durable, water- and germ-proof. For shade and curtain purposes it is a very durable material, fairly inexpensive, and easily kept clean.

Leather also has its advantage as a covering for doors, furniture and particularly for walls and ceilings where the nature of the material lends itself well to filling any shaped space, thus avoiding unnecessary jointing, which on opening might impair decorative effects. The leather surface may be finished in illuminated oil colors laid on lacquer over leaf, and acquire additional beauty by age, time blending and deepening the color tones. The leather used should be of the most perfect tannage, and applied by skilled artisans. The discriminating connoisseur can, if he desires, make, in a portion of his home in leather screens and wall-panels, examples of the Spanish, Florentine and Venetian schools, where he has an inclination for the "antique," a little money and a fairly permanent abode.

With all the hurry and rush of the present day it is a great thing to come in to where a feeling of restfulness is apparent. Most every one grows tired of extremes, and when the pendulum of "style" swings back in its course to the simple forms, there is a distinct sense of relief to the eye. The American people demand change, but let us take "the gifts the gods provide" and enjoy the "simple life pose" while it lasts. A very charming expression of the true inward meaning of this simplicity in furniture and house furnishing comes to us in the movement which aims to restore the craftsman to his former position of honor as the collaborator of the artist. If one could obliterate the earlier performances of this revival and "start fresh," these furnishings would mean all that it is meant they should. At any rate they may prove a sign-post toward simplicity, and where we can make its products parts of our homes the weeding process has at any rate begun.

For those who can start from the beginning, we find fabrics for the walls in a kind of canvas and burlap of charming colorings to harmonize with almost any color scheme in mind, fabrics which usually have a texture of burlaps, but also come in a loose basket weave, a sort of Japanese grass cloth which is a

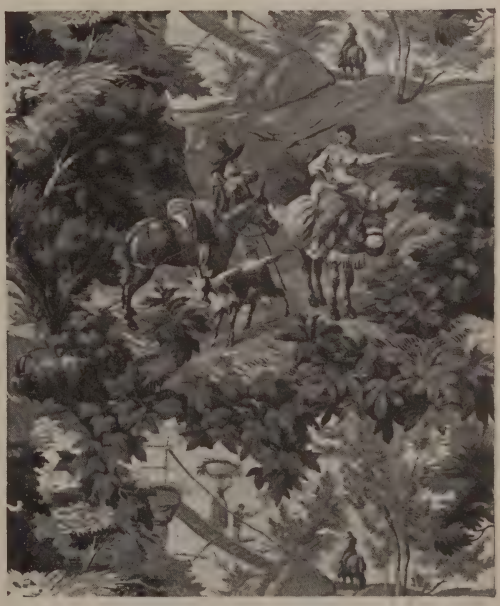
A RICH FIRST FLOOR FRIEZE.

SOME ENGLISH DESIGNS.
FAIRY TALES AND NURSERY RHYMES.
(Designs reproduced by courtesy of the Emden Company.)

MOTHER GOOSE PICTURES.

MONTHS OF THE YEAR.

FARMLAND SCENES.



SPANISH RURAL SCENE.

OLD TIMERS, YET ALWAYS NEW.

(Designs reproduced by courtesy of Jos. P. McHugh & Co.)

A BOLD THOUGH QUIET FRIEZE FOR THE DEN.

Wistaria and Lattice.

Wild Wistaria.

MORE BEDROOM DESIGNS.

A HOLLAND SCENE FOR THE DINING-ROOM.
(Designs reproduced by courtesy of the M. H. Birge & Sons Co.)

BABES IN "DUTCHLAND."

A DINING-ROOM MOTIF.

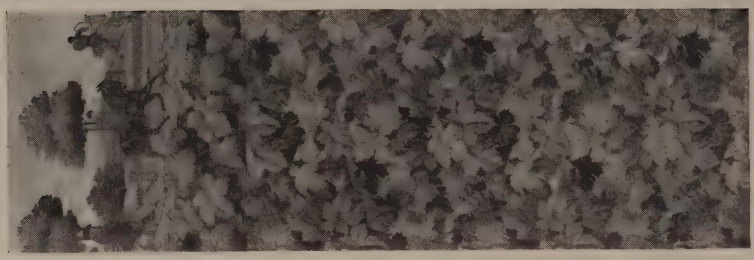
"BABES IN TOYLAND."
(Designs reproduced by courtesy of the Robert Graves Co.)

woven grass and gives beautiful effects of light. The color scheme may be carried out in window draperies and doors, for the latter of which canvas is used a good deal. There are the cool gray greens, the woodland greens and all the colors of changing autumn, the russet browns, the yellow browns, and the color of ripe wheat, as well as many bluish tones. They are ornamented with designs in applique or couching-drawn work or darned work of a contrasting but harmonious shade. Then, too, linen velours come, where a rich, velvety surface is desired, in the same wide range of shadings, and loose woven flax-canvas for window hangings, which serve to keep the world out and the cosiness in. This last is used also for upholstery and chair cushions, as well as a heavier grade known as heavy flax canvas, which also is excellent for scarfs for buffets or tables. For scarfs and table linens a homespun linen is available. This is made in the natural color, a warm brownish gray. For this same purpose comes a hand-woven linen 15 inches wide (the right width for runners), and Flemish linen, which is a finer weave. There are colored linens and bloom linens used almost altogether for appliqued designs. A material called blue and white farm is admirably adapted for a blue and white room where quaintness is desired, for it is quite like the old-time bedspreads of our grandmothers' weaving. What is called a casement fabric comes in block printed linen in a variety of color combinations, nearly always of a conventionalized flower design. If silk is desired there are plain and block printed mandarin silks, madras cloth, scrim, crepe and many others.

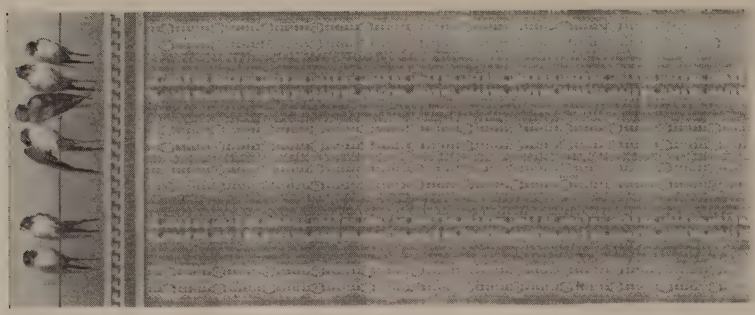
The house is now at the point where the decorator has departed. Even before this the question of new furniture has been discussed. The housewife in her shopping around town has seen many stores and sources of supply both from within and without. She has kept her eye on the advertisements in the magazines and probably has a little library of catalogues. These are mentally and physically marked, ever with an eye to price, for she wishes, as a trader (and all women have a natural gift that way), to obtain the best she can for the expenditure appropriated for her needs. Perchance she has been a member of some woman's club and listened wisely to the talks on Arts and Crafts given by some of the pioneers of that movement, for we are still in the days of such things, though moving rapidly forward. In many cities there are exhibitions more or less permanent of these bodies, Women's Exchanges and the like. So has she been acquiring an education in good taste and she longs for good things. These are not hard to obtain, though, of course, hand work and special designs cost more than machine made articles in quantity, repeated again and again, though often from excellent material with good finish on well designed lines or pat-

DINING-ROOM FRIEZES.

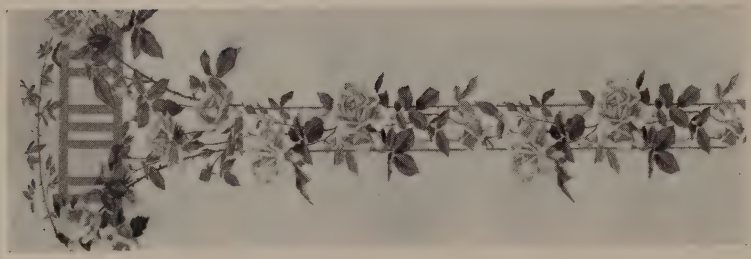
BEDROOM SUGGESTIONS.
(Designs reproduced by courtesy of the Alfred Peats Co.)



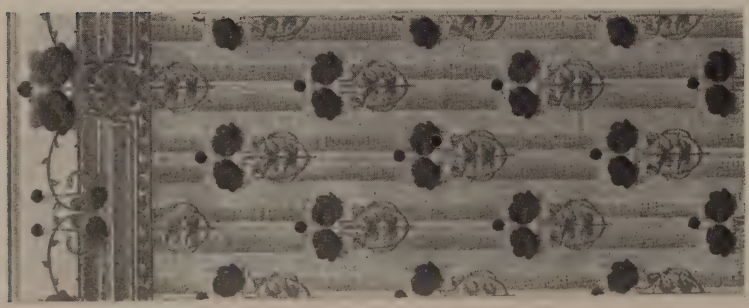
Suggestions of Autumn.



"Birds of Feather."



Good Rose Pattern.



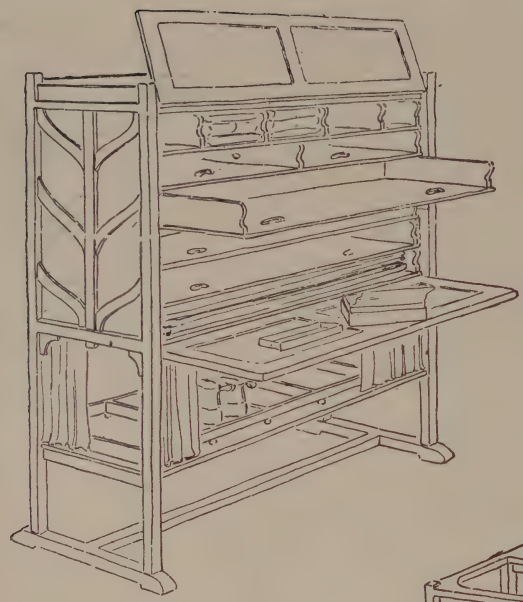
An All Around Design.

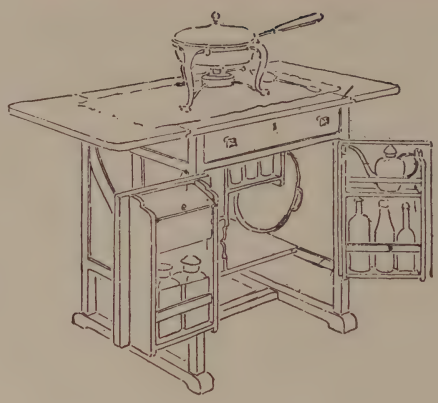
SOME INEXPENSIVE PATTERNS.

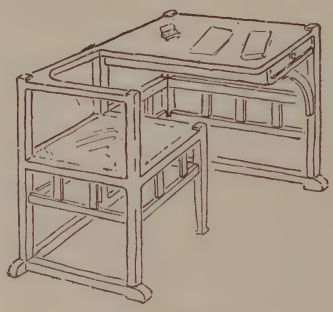
(Designs reproduced by courtesy of the Gledhill Wall Paper Co.)

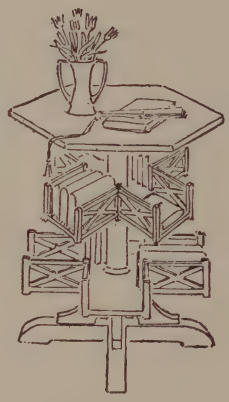
terns. The manufacturers, it is only fair to say, keep a very close watch on the market and every commercial possibility is closely scrutinized. Good ideas are sought with avidity and even the berated business man takes many chances in keeping just a little ahead of his market with new tryers. So, if one knows what to buy, the whole gamut of supply, let us say in New York, and most cities are but a scaling down in the size of this place, may be taken into consideration, running from the Society of Craftsmen and its affiliated individual workers to the various furnishing departments of the great commercial emporiums. To buy through the first source means of course a more limited choice and a more plentifully stocked purse than if one has to limit time and money to the needs of the every-day suburbanite. Without deprecating in any sense the department store, where the discriminating may find good values for their outlays, the quest is perhaps more satisfactorily accomplished in the "shop" or special store, where there is not too great a rush of customers or demands made upon the efficient salesmen. These shops are rather well distributed over the city and are fitted up in some cases with a uniqueness of arrangement quite in keeping with their individual product. This is speaking now not of the retailer, but of the manufacturer who sells direct.

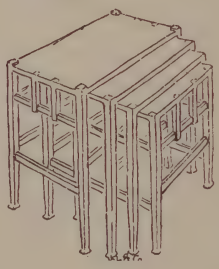
So in the market, we find articles in American ash in the following finishes: The natural wood (protected by a coating of waterproofing finish), willow green, weathered gray, to a brown (dark nut color), sealing wax red (sumac red with black markings), smoked black (showing the grain in deep brown); also waterproof furniture of willow Madeira style, in which the foregoing stains are used as well as Indian yellow, Delft blue and ebony. The seat cushions to chairs and settees are made of floss and are very comfortable and durable. The furniture known as the Mission style is now deservedly much in vogue. There are chairs of all descriptions for varying needs, but all built with an idea of use and comfort. Tables of a most attractive multitude of shapes and sizes, furnishings for dining rooms, bedrooms, living rooms; in fact, to fill nearly all wants. Many of the shapes are quaint, and much ingenuity is shown in their conceptions. There are many articles named for the various colleges, where undoubtedly its substantial qualities, as well as its progressive ones, make it in demand. What is known as Craftsman furniture is made of oak. The wood is treated with an acid to fume it, then a light surface tint (to the making of which much time has been given) is applied. The result is an autumn leaf color not quite brown and yet not quite green—a sort of autumn-leaf wood finish. It is developed into two shades, one of which has a gray and silvery sheen and the other more of a brown, with a greenish cast. Then, finally a

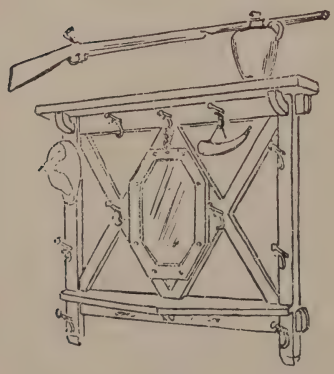


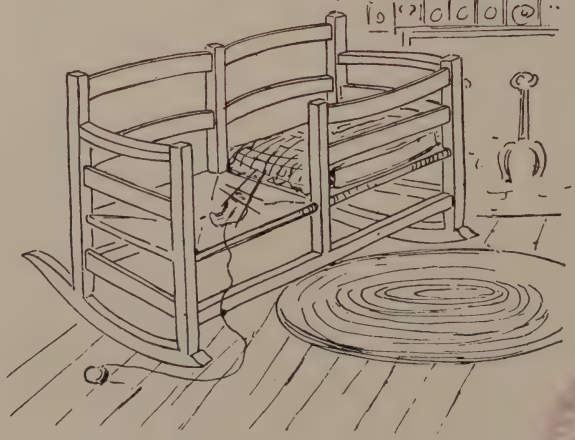












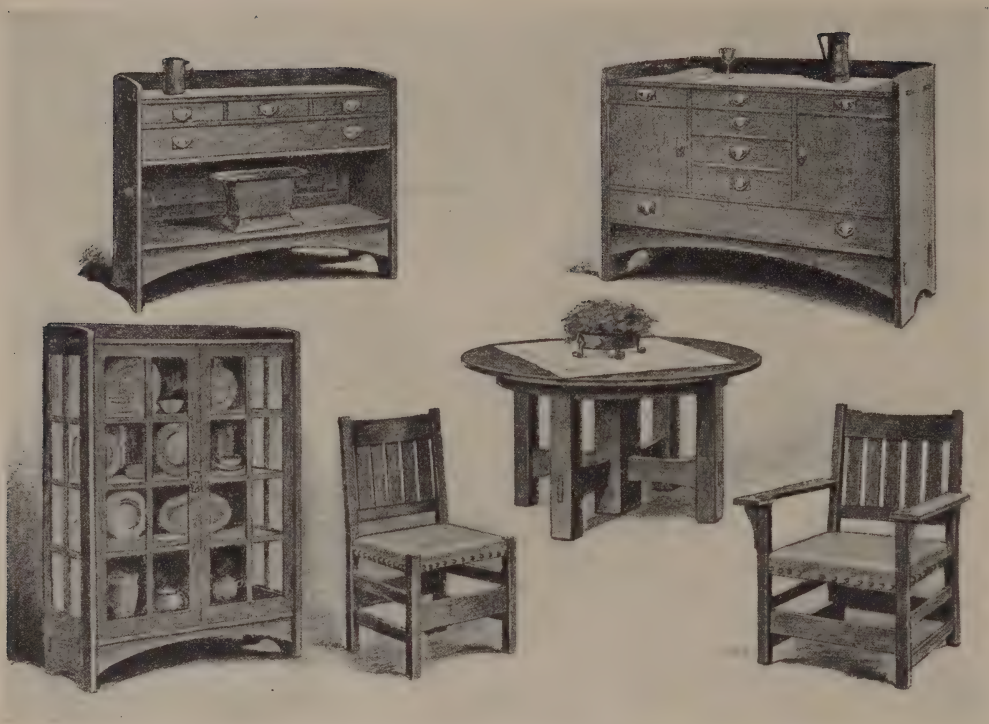
Clothes Press.
Piano.
Hall Rack.
Secretary's Table.
Nest of Tables.
Chafing Dish Table.
Book Table.
Double Seat.

ORIGINAL "MISSION" DESIGNS.
(Designs reproduced by courtesy of Jos. P. McHugh & Co.)

Good Cheer Cabinet. Magazine Rack. Desk with Brass Trim.
Cedar Chest. Double-Chair Table.
Folding-Chair Table. Umbrella Stand.

SOME EXCELLENT DESIGNS.

(Designs reproduced by courtesy of Ferguson Bros. Mfg. Co.)



DINING ROOM BITS.

FIRST FLOOR FURNISHINGS.
(Designs reproduced by courtesy of the Craftsman.)

FOR EARLY SUPPERS.

LITTLE FURNITURE FOR LITTLE FOLKS.
(Designs reproduced by courtesy of the Craftsman.)

wood luster is added. The designs are strong and simple of structural form. As in the Mission furniture, the range of objects and shapes and sizes is wide. It would be hard, indeed, to be unable to suit one's taste.

There are good types which may be found in various conditions of soundness of manufacture and genuineness of finish. Each place has its own little touch here and there, even though it may move on conservative lines, or have such a plant that "commercial stock" has to be carried along with the higher class designs and more individualistic treatment.

Now as our house-builder knows where to go for wall coverings and furniture and what is in the market, let him think a little of selections; his material he knows; next comes color and its adaptation. Rooms with plenty of sunlight may be on the blue end of the chromatic scale; and in rooms where the sun comes seldom, if, indeed, there be any such in the country, rich reds, oranges and yellows. Grays in a profusion of multi shades, toned with a basic color, are good on the neutral zone. Hall, smoking rooms, dens, may run from Persian combinations of the turbulent East to the placid monotone of the Puritan.

The dining room should receive attention first, for next to the kitchen it is the beginning of the day. The man of the house arises to go forth to battle. He knows what he is to meet. So let him come into a room that receives the first peep of sun on a winter's morning. Give him, of course, a comfortable chair. If he doesn't want to read, have your room at least so that when he leaves he does so with a realization of how good a decorator is his helpmate, who has arranged sets of china in the glass-front closets and the crystalline specimens of the glassblower's art. Perchance she has also arranged some specimens of modern pottery on the mantel. Teco-ware, Rookwood, Zanesville, or some Japanese art which she has picked up at V——'s or at some auction. The latter is all right if she has a discriminating eye.

Not less important than the dining room is the nursery. The children may be young and only ready for the house and the kindergarten therein, which their mother has arranged for them. The room is upstairs and gets the first peep of the morning sun and the song of the birds without. The wallpapers are full of stories of seasons out of doors, or they show in simply drawn friezes spontaneous pictures of child life here and abroad, similar to the illustrations which we give herewith. In the room is charming little furniture—cribs or beds or chairs—different sizes, for growth; all plain, but ready for use. In nooks and corners are little desks or tables and cupboards, and looking within we may see the whole paraphernalia of child life. It were good to be here, the most important room in the house, where is ever apparent the mother's hand.

Now the babes are away at school or out in the open, and household chores are for the matron. Perhaps a few neighbors have been in the night before, in the snuggery-den, low-ceiled and in dark wood, with plenty of warm color, couches, tabarets, and these quiet pieces of furniture, which look innocent enough from without, but conceal a wealth of good cheer in their interiors. Bottles and glasses and cedar boxes, with the entrancing smell of the Havana. The room is fitted, too, with hammered brass or copper work, trays and boxes and other things nearer the floor; and madam sees that all is made well for her lord's homecoming. Out into the living room, with its provisions for all the family, its Morris chairs, its divans, davenports or settees, its big open fireplace, good all the year round, its bookcases, dwarf-built in, or sectional, the pictures on the wall, with long, low frames hung on the sight line. Have a piano in the living room, a plain, simple design, harmonizing with the color scheme. Save your money for the keyboard quality, and when on a summer night you hear the beautiful song of the Evening Star don't let it be disturbed by a clash with the quality of the "decorative motif" of the instrument. Perhaps you can afford an organ, and can install it as part of the scheme. You will never regret it, and if you do just play or have played Arthur Sullivan's Lost Chord, and the initial cost will all disappear in your own satisfied feelings. In fact, make your home a harmony just as skillfully as music is composed.

We have already been in the nursery. The other bedrooms are in quiet tones —pinks and greens, blues and soft yellows; northern exposures in reds again, counterpanes of the beds to match, and curtains and draperies,

too. No overloading with furniture —the bed, a couple of chairs, a bureau or chiffonier, and the washstand daintily arranged unless you can have fixtures and running water in the room. Yet up another flight and we find the minor rooms for the older children and help. Keep all this in harmony. Don't make this floor a furniture hospital. Have a few good pictures, warm rugs on the floor or rag carpet, matting, if you cannot afford these others, with something by the bed for bare feet. If you have an unfinished attic do not let that become a catch-all. If trunks are there keep them in order. Store carefully any extra or unused furniture and maintain an open space for the children on rainy days.

No housewife needs to be told very much about her ideals. As a rule they are far ahead of her purse, and so let us ask her if she does not agree with us in making the keynote of the furnishings of the country house: Simple appropriateness, everything to its use and place, the house and its belongings for all.

Orange, N. J. RESIDENCE JOHN HOPPIN.
A narrow inadequate terrace with too steep a slope.

The Kitchen and Its Dependent Services.

I.

(With Sketches by the Author.)

Miss Jane Addams, in a recent lecture on immigration, described the first impressions of a poor old Italian woman, who failed to appreciate American "improvements," as displayed in Chicago tenements, and refused to use her range because it was *molto brutto* (very ugly). Although too polite to mention it, foreigners of higher rank object to the ugliness and wastefulness of our domestic arrangements. Few American tourists ever have a chance to inspect the French or Italian home kitchen where a handful of charcoal in the toy-like stove suffices for the cooking of an ample meal. First kindled after early mass, for the cup of black coffee which, with a bit of bread serves to ward off hunger till noon, it is allowed to die out until time for the elaborate midday meal. Maria or Pia cooks for all in a mere closet, reaching fire, sink, shelves, food, without moving more than four or five feet. We are beginning to appreciate the fact that space should be saved—that less exertion, fewer steps, are required in a small room. Perfect meals may be conveniently prepared in the well-planned kitchen of a private car or of a yacht, but, except in traveling, such cramped quarters will never become general here, although a cook who has once become accustomed to compact arrangements prefers them.

A French, Italian or German housewife would be horrified to see the amount of coal or gas wasted here (not to speak of the food supplies!) Because when Bridget piles on fuel, coal is cheap and wages high, we shut our eyes, knowing that a protest from her mistress may mean a sudden exodus with impertinent remarks about stinginess, etc.

The average income in America is not large, but in Europe it would go four or five times as far as it does here, and the living in general would be better. Great leakage occurs in the kitchen, where time, strength and unnecessary amounts of expensive supplies are wasted. We talk of the "Simple Life"—there would be more time for higher things if we cut out the useless. In

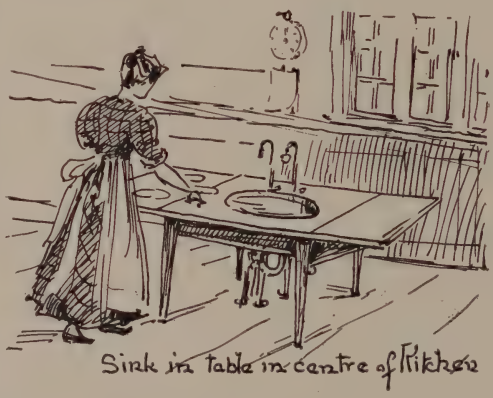
doing this, we must not forget to provide lavishly of the essential; while cutting down the size of the kitchen to save steps, let us plan carefully a convenient place for each necessary utensil. Servants, especially in the country, are becoming more difficult to obtain; their

Kitchen in a private car. The bright iron range and broiler have hoods over to collect and disperse odors; the row of windows is seen over. The stove lids are depressed, so that nothing can slide off when the train is in motion.

wages are rising. When, therefore, a good one is found, it is well to aid her with all obtainable appliances to economize her strength, to make her contented; the mistress has less care with one or two well-trained maids, than with three or four inefficient, unwilling ones.

Will a properly arranged kitchen be appreciated by the average servant? Will expensive fixtures be properly cared for? It has been proved by experience, that after her usual cast-iron prejudices have been overcome, a girl likes a room that is conveniently and economically planned. A friend, who recently moved from a mansion which, in Revolutionary times, was the "Governor's House," with a regiment of slaves to serve in the vast underground kitchen, found her cook greatly dissatisfied with the culinary department of the new home. "I think I'll be leavin' ye's at the end of me month, for I don't feel at home in a bit of a place like this," she sniffed haughtily. But before long her mistress perceived that Mary realized how much less fatiguing was the work, and that even with increased entertaining and less outside assistance than of old, she was less tired at bedtime. Later, both mistress and maids acknowledged to the gratified architect that the housekeeping ran with magical ease. But no one knew how much care had been taken to secure this result.

In olden times the blacks were quartered by themselves away from the great house, free to laugh, sing and make merry. No one wanted them near, and a few extra steps counted for little when labor was cheap. Nowadays, we are apt to forget that every servant needs a quiet, cool little sitting-room, apart from the kitchen, a place wherein to eat in peace, to read or rest in when tired, to receive visitors in comfort. The class of servants we are anxious to engage demands this as a right. When we consider the needs of our hirelings from their standpoint, as carefully as from our own,



the problem of domestic service will be simplified.

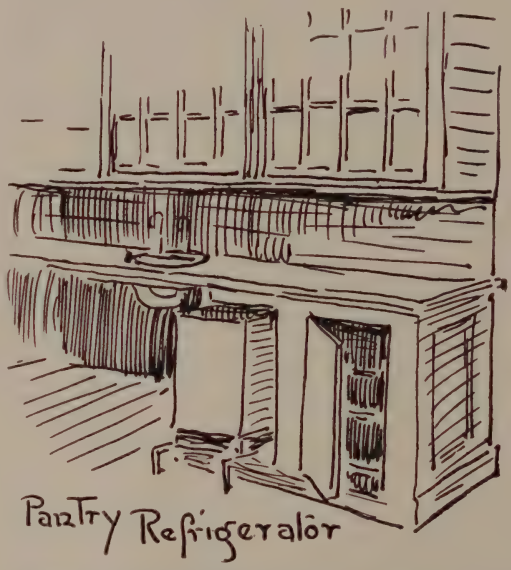
It is most important to provide a through draught, and plenty of light (sunlight, if possible) in the planning of a kitchen. No hard and fast rules can be laid down for the arrangement of fixtures, etc., as no two housekeepers agree in their ideas. For instance, one insists that the light for washing dishes shall fall from the left, and that the drip

The kitchenette is extensively used in studios and summer cottages by people who have kept house abroad. A French maid, accustomed to a limited space, finds little difficulty in turning out a good meal from a kitchenette six feet square. A copper pantry sink set in a wide counter shelf, covered with zinc soldered to a high back; a gas stove with portable oven, a refrigerator, bread box and a few shelves complete the simple equipment.

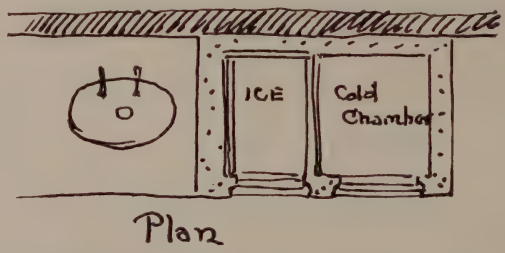
shelf shall be on that side—the next wants two sinks side by side, the light in front and drain boards on either hand. All these trifles must be considered before a perfect plan can be finished. When dishes must be washed thousands of times, a few hundred unnecessary movements are worth saving. The shortest paths from the range to the dining table, from the table to the pantry sink; the best methods of serving hot things piping hot, and cold dishes icy cold; the stowing away of all supplies, the cleansing, the "making fair and clean"—must all be considered, and the relations of dining room and kitchen to pantry, cellar, cold room, store room, servants' hall entrances, etc., and the disposition of all fixtures, sinks, range, etc., arranged with common sense.

If a mistress were obliged to work in her own kitchen, to dish up elaborate dinners when the thermometer outside stood at over eighty, she would soon

learn the importance of ventilation. "Why did you leave Mrs. X.?" was asked of a cook who had faithfully served the X. family for nearly a year. "Because the kitchen was so unbearably hot when warm weather came that I got sick. There was no way of getting a draught." This complaint is common; therefore, in planning a house, the architect should insist that the service wing must have its due share of fresh air, unblanketed by the main building. The securing of a cross draught seems easy, but in how many otherwise well-planned kitchens do we find it? That "ventilating flue over the kitchen range" is rarely large enough to carry up the sudden volume of hot air and odors that arise when a large meal is in preparation. When the chimney is planned, the flue should be specified to be of size amply large for emergencies. Too much draught can be checked by



Small refrigerators are to be had for the pantry. The ice box slides out when it is necessary to fill it.



closing the register, but on sultry days all the heated air in the hood over a red hot stove cannot be drawn up through a 4″ x 8″ flue.

For convenience in planning a small house, one chimney is often made to contain the flues of all fireplaces. A fireplace may well be placed in the corner of a living room where the walls keep off draughts and tend to bring nearer to the cottager his longed-for "cosy corner." Being a good rule, it works both ways,—a situation that

makes the parlor fire comfortable in winter, will make the kitchen fire unbearable in July. Place the kitchen range away from a corner, unless there is the best of ventilation.

A sheltered vestibule should be provided next the kitchen in which trades people can be received. No tidy maid wants butchers and bakers tracking mud on her clean floor. A porch enclosed in netting is desirable for use on warm days.

The pantry should be well lighted and situated, if possible, so that the maid, while at work, can see guests entering the front entrance. No maid should answer the door directly from the kitchen, as smells are sure to surge out into the hall unless there are two doors.

No kitchen can be successful unless the arrangement has been well thought out beforehand; mechanics cannot do their work without these careful drawings and details, which should not be below the attention of the architect. He is, of course, expected to give his client a graceful skyline and an artistic grouping of windows, his proportions must be good, his mouldings fine; but all this counts for little with the unfortunate mistress thereof if she finds the domestic arrangements inconvenient; if there are no suitable places for teacups and platters, if the stairs are dangerous and the cook roasts with the dinner on every warm day—if the ice box is next the range and the sink is in the dark, with such discomfort, the difficulty of keeping efficient help is increased ten fold.

The ventilation of a kitchen must be carefully attended to. A hood over the range connected with a large flue running up next the smoke flue must be provided to carry up hot air.

The requirements of each family being different a general rule for the planning of the service end of the house cannot be given, new problems must constantly be solved; in the small house, the difficulty is greatest. A good solution is found in the plan on page 483, where the windows are placed to give the utmost ventilation and light, where the range, protected from draughts, is yet not stuffily stowed away, but one small dresser and a store closet opening outside are insufficient closet space, even if all the pots

and pans are hung (as they should be) in full view; and three times as much shelf room is needed in the pantry, though with three doors, little wall space is left for it. With this exception, this plan is really an admirable one. The plan on page 481 is open to the same objection, the arrangement is otherwise excellent; the way the hall touches the pantry is good in both; the back stairs are convenient, though they would be better without winders, which are particularly dangerous for women who must carry loads down them. The plan on page 479 is rather better as to ventilation, but there is only one small dresser and no closet (except that for the refrigerator), and the walls are broken by doors and windows, and the tidy disposal of utensils would be puzzling. In a larger plan (page 487) a very small fraction of the cubic contents is devoted to the servants; the pantry links the dining room and kitchen properly and the arrangement of wide counter shelves with cupboards below and dressers over is practical. No porch of any kind is provided for the servants. In a country house, it is certainly desirable to give them some kind of a breathing spot out of doors.

A kitchen should have a high wainscoting of white glazed tile (in fine houses the walls are faced with glazed brick). If a cheap substitute is desired, Keene's cement on wire lath may be used. It must be well laid, with a third coat of finest quality, troweled to a smooth finish, and divided to imitate tiles into six-inch squares with a light line made by a V jointer. Several coats of good enamel paint will be necessary after the cement is dry.

White glazed surfaces are best, they are easily kept in order and inspiringly clean. It is a pity that the price of glazed brick and tiles precludes their being employed for a wainscoting in the cheaper kitchens. We may hope for their more general use in a few years.

In specifying materials for the proper finish of a kitchen floor, one is again tempted to make demands on the purse of the owner; a good floor saves trouble later. A list of materials begins with the cheap North Carolina pine, includes hard wood, concrete, rubber tiles, cork, and tiles, but each has some defect: the finish of a wooden floor soon wears off under constant scrubbing, when the bare wood will absorb grease and show foot prints; the popular red tiles are very hard and cold under tired feet; ditto the attractive unglazed white tiles. Taylorite and similar compositions have been tried with success in kitchens, hospitals, etc. They are elastic, warm under foot, and not too expensive. Though these cannot be made in a very good white (as the basis is sawdust), a cheerful yellow looks invitingly clean. It is laid half an inch thick over an under flooring of wood (which may be an old flooring). Neat borders of stripes of the different colors can be added without greatly increasing the cost, and it may be turned up to form a neat base. This flooring needs an occasional bath of oil to keep it in order. In Italy a popular cheap floor is made of small bits of bright stones laid in cement and polished. Over there, weeks are devoted to the patient rubbing of marble or composition floors; here it is finished in a few hours by a time saving machine. Kitchen and laundry floors, as well as hearths, may be laid in carefully finished concrete.

If wood is used, "flat grain" should never be specified, as it soon splinters badly. The boards should be very narrow, of "comb grain," thoroughly seasoned, tightly driven together (in order that unsightly cracks do not appear later), and well blind nailed to the underflooring.

Floors of cork are excellent, being very soft and warm, cleanly and durable. But the color of cork is rather dark and the price high. Still more attractive is the pretty interlocked rubber tiling which also is expensive.

If the edges near the wall cannot be turned up, they should be covered with a small quarter round moulding, as dust invariably collects in sharp angles. It would be well if all kitchen and laundry floors could be arranged to slope gently to an outlet so that they could be flushed easily.

Windows should be as large as possible, arranged for a cross draught. To

exclude insects they should be covered outside with fine copper netting. Wire screens are a hindrance to the closing of outside blinds, but a new arrangement for operating outside blinds from the inside works successfully. Two chains, passing through the window frame, move a strong arm attached to the blind outside. This is done with the sash closed.

Nickel for fittings is not as popular as it was several years ago, as it soon grows dull in a warm moist atmosphere. Hardware should be plain and strong, with white porcelain or glass knobs. Special patent fastenings are to be had for closet doors, for windows, etc. The trim should be plain without dust catching mouldings.

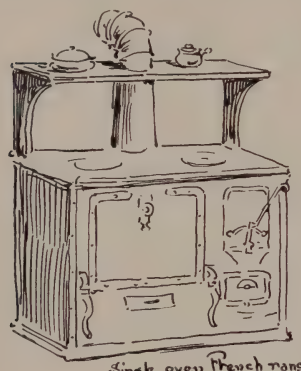
Excellent meals are prepared in primitive kitchens. The bright copper saucepans hang under the smoke-blackened vaulting. A handful of charcoal in the square hole in the brick platform serves for the cooking.

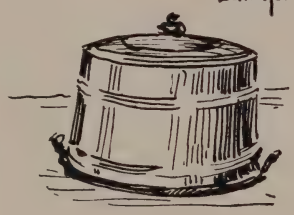
Disastrous fires frequently result from the carelessness of the man who, smelling escaping gas, seeks to find the leak

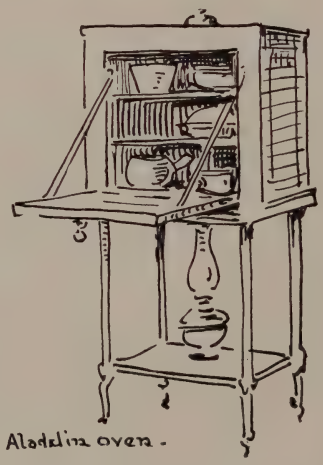
with a taper. After a thorough search, the smell disappears and he retires to bed, to be awakened in the middle of the night by an alarm of fire. The tiny leak that caused the mischief is illumined by his taper; not noticing the little blue flame he walks away, leaving it burning under a beam. After smouldering for hours, it suddenly bursts into an inextinguishable mass of flame. The proper way to find a gas leak is to coat the suspected pipe with strong soap suds (just as one would a leaky bicycle tire) when the smallest leak will at once blow a bubble full of gas.

As the main supply pipes of the house are often fastened on the kitchen ceiling, care should be taken to see that they are set in workmanlike fashion, in straight rows. It is not worth while to sacrifice the proper working of the hot water lines in the rest of the house to avoid running these through the kitchen.

I was once consulted by an owner who complained that the supply of hot water in his bath room was insufficient. A plumber removed five unnecessary sharp bends which had been put in to keep the lines from being seen on the basement ceiling, and there was no further trouble about hot water. In the best work of this kind, the pipes are nickel-plated, but the majority of owners are content with a neat coating of easily renewed aluminum paint.





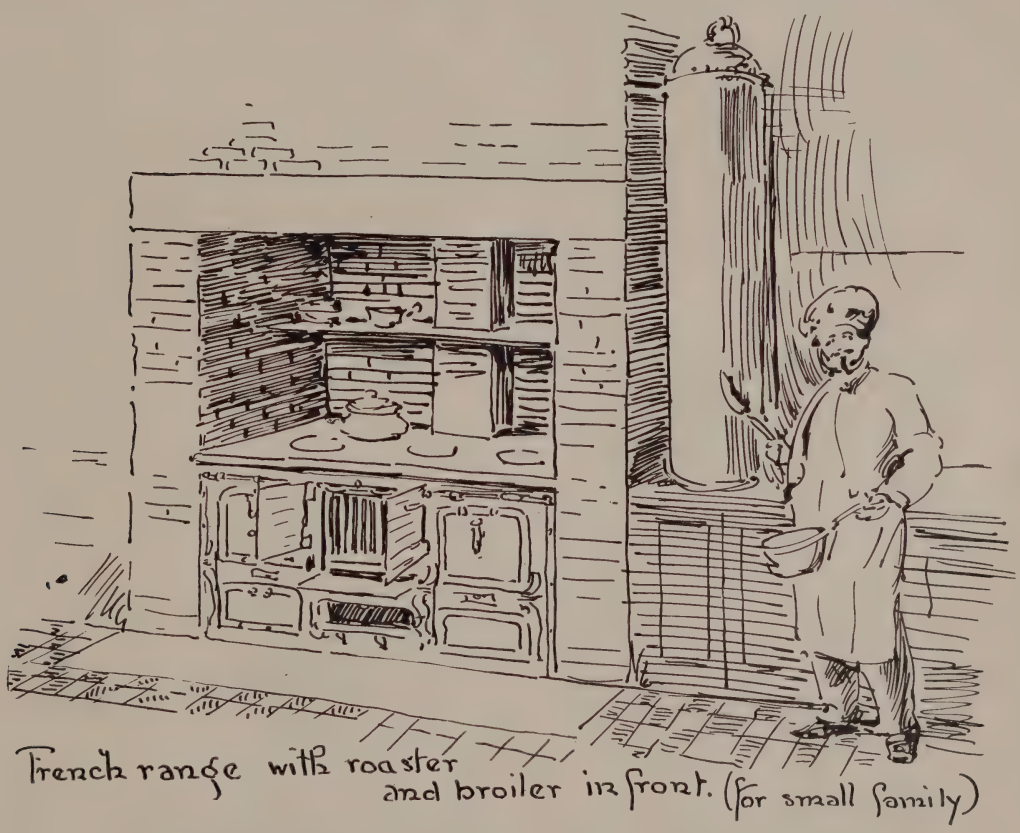


In city plumbing regulations, the sizes and quality of pipes are carefully specified and enforced by the inspectors; in the country, unfortunately, light weight pipe of small size is often substituted by unscrupulous workmen to save expense and trouble, causing constant annoyance to the tenants later. Supply pipes should be exposed for easy excess in case of need. If concealed in the wall, they should be enclosed in a pocket

with movable cover. Needless to say, no crevices should be left for mice to enter.

Hot water in the house of moderate size is generally supplied from the kitchen boiler. Where a fire is constantly kept up, and there are but two bath rooms, this answers the purpose, but a hot water heater is better. Hot water pipes should be installed with a pipe returning to the boiler to insure a constant circulation of water. As soon as the faucet is turned hot water flows without waiting for the tepid water in the pipes to run off. Where the supply must come from the kitchen range the boiler may be covered with a "jacket" consisting of a layer one and one-half inches thick, of hair, felt, or asbestos covered with canvas painted white, which retains the heat for hours after the range is out. This may be purchased at plumbers' supply houses.

Where a boiler is found to be insufficient a hot water heater may be used in addition The water may be partly heated by the waste heat from the range and then pass down to a gas heater in the cellar to be raised to any desired temperature. The same scheme may be used in winter with a boiler connected with the furnace and heated by a coil in the fire box. Galvanized boilers are in general use on account of their low price, but copper ones are much more durable; the life of a galvanized boiler is only six years. Where space is at a premium, a horizontal boiler may be placed over the range, but is not advisable, being uncomfortably hot overhead.



The doors in front may be opened for broiling or roasting in the open fire.

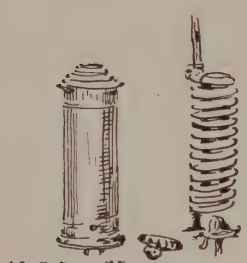
In the country, far from a gas house, an oil stove may be used to advantage in addition to the coal range. They have been greatly improved of late, the flame burns blue without odor, and the reserve supply of oil is in a reservoir at a safe distance. They are both cleanly and con-

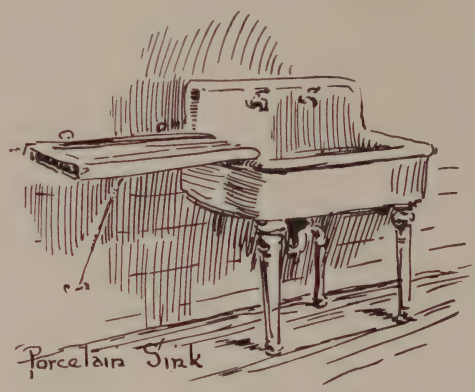
venient. For these and for gas stoves we find a large variety of economical baking and steaming ovens, convenient toasters, broilers, etc.

The familiar cast iron range for coal is commonly used, on account of its moderate price. It is still cast with many dust catching mouldings and projections, and designed in the worst possible taste. A study of some of the artistic old fire backs used behind the open fires long ago reveals the degradation of modern taste; even cast iron may be artistic if treated with due regard for its limitations. The addition of ornate pieces of nickel is inexcusable, but must be done to please the potentate of the culinary department, who likes "tasty" stoves. The French have long used stoves of wrought iron with bands and rods of brass, plain but good in style, as well as excellent from a practical standpoint. At first these were made for hotels only, but now one can find small sizes, with single oven, for family use.

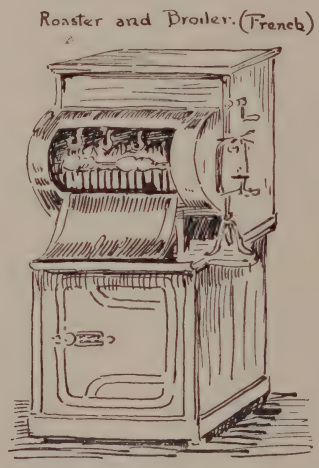
All ranges are made with plate warmers for keeping food hot. Some of the newer ones are adapted to the use of both coal and gas, the gas being at one end or above. Gas is more convenient in warm weather. A gas range should have its ovens above to obviate the necessity for stooping. Ovens cannot be raised when heavier fuel is used, but with gas or electricity there is no sense in following antiquated methods.

An oven indicator, a clock like apparatus that fits into the oven door, is sometimes used to test the temperature when baking. A spring expanded or loosened





Gas stove for small kitchen.



by the heat moves the hand on the face pointing to numbers from I to XII. It is inexpensive.

An old-fashioned iron sink has one advantage over its modern white rival; it cannot be chipped and marred by heavy pots clumsily handled by a careless servant; but it is liable to rust if not kept clean and oiled. A galvanized iron sink is very difficult to clean and generally looks grimy. In some sections of the country soapstone sinks are used. These are cheap, cleanly and practical, but ugly. A sink of the cream-colored pottery, though less expensive than white, is attractive and easy to clean. White sinks are well worth the difference in price, if they can be treated with reasonable care. High backs of porcelain or enamelled iron in which the faucets can be inserted should be specified to match the sinks.

Where space is at a premium and laundry work must be done in the kitchen, a cheap combination fixture may be had with movable white enamelled sink and drip board set over two white enamelled tubs. Galvanized iron wash tub covers can now be found to replace the unsanitary wooden covers. Covers for tubs should not have hinges. They should be taken off and set aside while washing is in progress.

Faucets are being constantly improved; that old-fashioned washer which suddenly melted away at unexpected moments, allowing an uninterrupted stream of boiling water to escape, is out of existence now.

Shelves should be carefully planned over the sink and elsewhere, to hold bottles, soap, etc; hooks under hold mops and the various small cleaners. Shelves of convenient sizes are to be found in porcelain and glass at plumbers' supply houses. A cheap substitute is a wooden shelf with a covering of plate glass, which may be cut by any glazier from scrap glass.

A rubber tube with shampoo sprinkler to attach to the hot water faucet is excellent for rinsing dishes left on the drain board. Dish-washing machines are now in general use in hotels and other large establishments; a small size has recently been supplied for family use. This consists of a large galvanized pail to be filled with boiling suds, into which a perforated basket of dishes can be plunged; by turning a crank attached to the handle of this basket, a current of water is forced through, cleansing the contents thoroughly. The basket is lifted out, rinsed with clear hot water, and left to dry as in the large machines. There is no danger of chipping if ordinary care is used.

Much time has been expended of late years in the designing of convenient portable dressers, but it is much better to have dressers built in with the house, as the waste space over and behind collects dust.

Glass or brass rods over the range and at the sides hold all the pots and pans in constant use; all should be hung in full sight. Mrs. Roosevelt ordered this done in the White House. A place should be provided in the dresser for glass jars to contain cereals, etc.

A washing machine, which blows a stream of steam and boiling water through the clothes, removing the dirt and stains as no amount of scrubbing can do, electric irons, and a good mangle should be, and probably soon will be, as common as is now the clothes wringer. Laundry chutes from the top of the house and a small lift to the linen room are now provided in city houses.

We have not yet reached the stage when, like our French friends, we send our linen to be cleansed at a common laundry. This simplifies one problem in the home life. But in America, the saving is generally at the expense of our handsome linen, which is rotted by chemicals or frayed and torn by machinery.

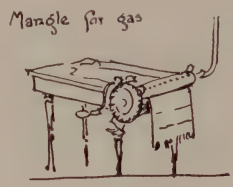
The mere man who recently published anonymously in London a book on the "Domestic Blunders of Women," devoted several pages to a feeling recital of her foolish proceedings in connection with the cooking of a chop, saying in conclusion: "The chop is like the rib from which she sprang—the root of all evil. The chop is typical; a woman always begins a thing from the wrong end; she never thinks that cooking is absolutely the last stage of the chop,

and that she has not the most elementary knowledge of any other stage"—and so on in amusingly embittered fashion. Mr. Mere Man does not know for how much discomfort the home refrigerator is often responsible. While any decent butcher is ostentatiously careful of his cold room (paying at once for any neglect in spoiled meats), my lady frequently neglects her refrigerator, until her family sickens with diphtheria or typhoid from the spoiled messes cook has carelessly left to impart germs to the fresh butter and milk.

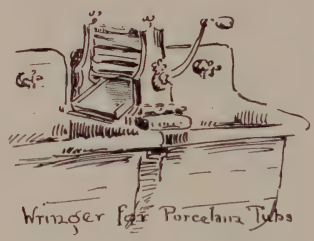
For a cheap cold room a new round refrigerator is to be found, made entirely of metal with aluminum finish, in appearance rather like a large stove. The finest refrigerators are covered entirely with milk-white glass, with air spaces between the inner and outer walls for the circulation of air.

The putting in of ice from the outside is not all it is supposed to be; while, theoretically, the idea is fine, in practice it generally proves a nuisance, unless very carefully planned. The door of the refrigerator must be directly opposite the outer door so that it can swing out conveniently. The outside door is difficult to fasten, being generally behind the refrigerator. If the maid is waiting for the iceman, with door ready opened, all goes well, but if he is obliged to wait,

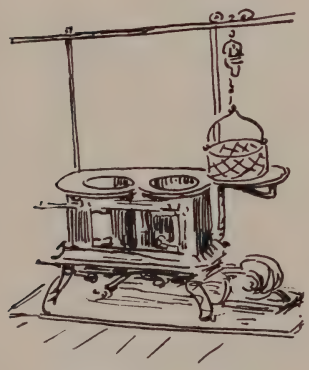
Very small refrigerator



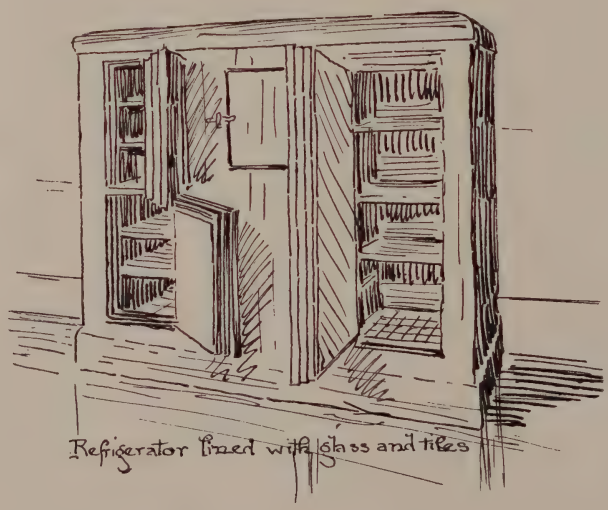
Mangle for gas



Wringer for Porcelain Tubs



Large Dishwashing Machine for a hotel.



Refrigerator lined with glass and tiles

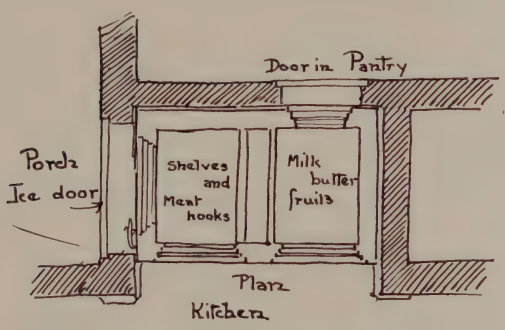
there is trouble. If he is provided with a key (which he is supposed to leave in a certain place), some day he forgets and carries it off, then there is nothing to prevent his returning at night, if he is dishonest, and entering the house.

The rage for non-conducting linings has reached such a pass that we find some refrigerators furnished with walls, composed of two air spaces, enclosed in two thicknesses of wood, three of sheathing, besides felt, mineral wool, and a porcelain lining! Architects are careful to plan a place for this very important adjunct to the kitchen, conveniently at hand, but carefully protected from the heat of the range. Manufacturers will make special designs to order, but the variety in stock is now so great that it is possible to find one to fit almost any desired space. Near the refrigerator should be a safe where vegetables and fruits can be stored, and where hot food can be left to cool until ready to set in the refrigerator. Sometimes in the country, where it is necessary to keep large quantites of meat, etc., a "cold room" is planned. A convenient and economical way of making one is to line a large closet with galvanized iron, soldered airtight, with window and door made double to exclude heat. Chill cans (cylinders six feet high, open top and bottom) when filled with ice keep the air evenly cold.

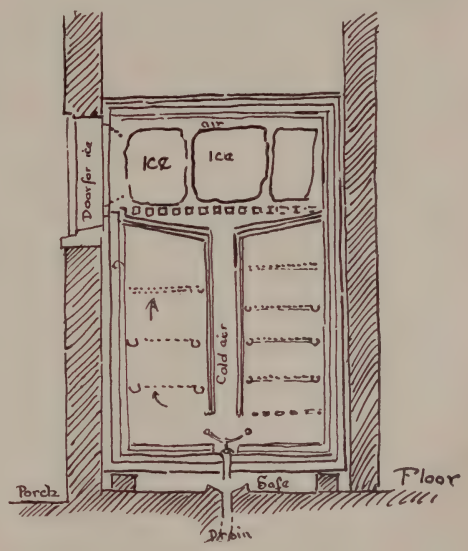
In no other country is ice used as universally as in America. Even in the bitterest days of winter great slabs are delivered at private houses, and this in cities where good markets, a square or two away, and a telephone in the pantry, provide extra supplies in case of a sudden emergency. In the country, of course, a private ice house, filled when that somewhat expensive commodity may be had for the carting, is attached to most houses of above the average size.

In the parish house of many modern churches, a kitchen is fitted up for social occasions, for cooking lessons, etc. An electric outfit is the ideal one for this purpose, but in most locations the cost of electricity precludes the use of it, and gas must be substituted. In a general way these kitchens are similar to those designed for family use. If lessons are given a row of small stoves are provided, with dressers and racks to hold the sets of plates and pans.

It would be interesting to go into an old-fashioned kitchen and see what a lot of junk could be thrown away by following Wm. Morris' rule, to leave only the useful and beautiful. Ancient kitchen utensils were really works of art, which we cannot hope to imitate now, but, by careful selection, we can avoid tasteless ornamentation and bad colors. Some kitchens are ornamented with stenciling



The arrangement of an ice box built to fit in a certain space is shown above. The ice is put in from the outside. A current of dry, cold air passes constantly over and around the food. The large door is in the kitchen and a secondary one in the pantry.



in color; for instance, in a household where blue Canton china is used, a simple blue border like the lines on the edge of the plates is used, but this is unnecessary. A modern kitchen, radiantly white with its porcelain fittings, gleaming with the nickel and copper of simple, well-chosen hardware and utensils is sufficiently attractive without other decorations.

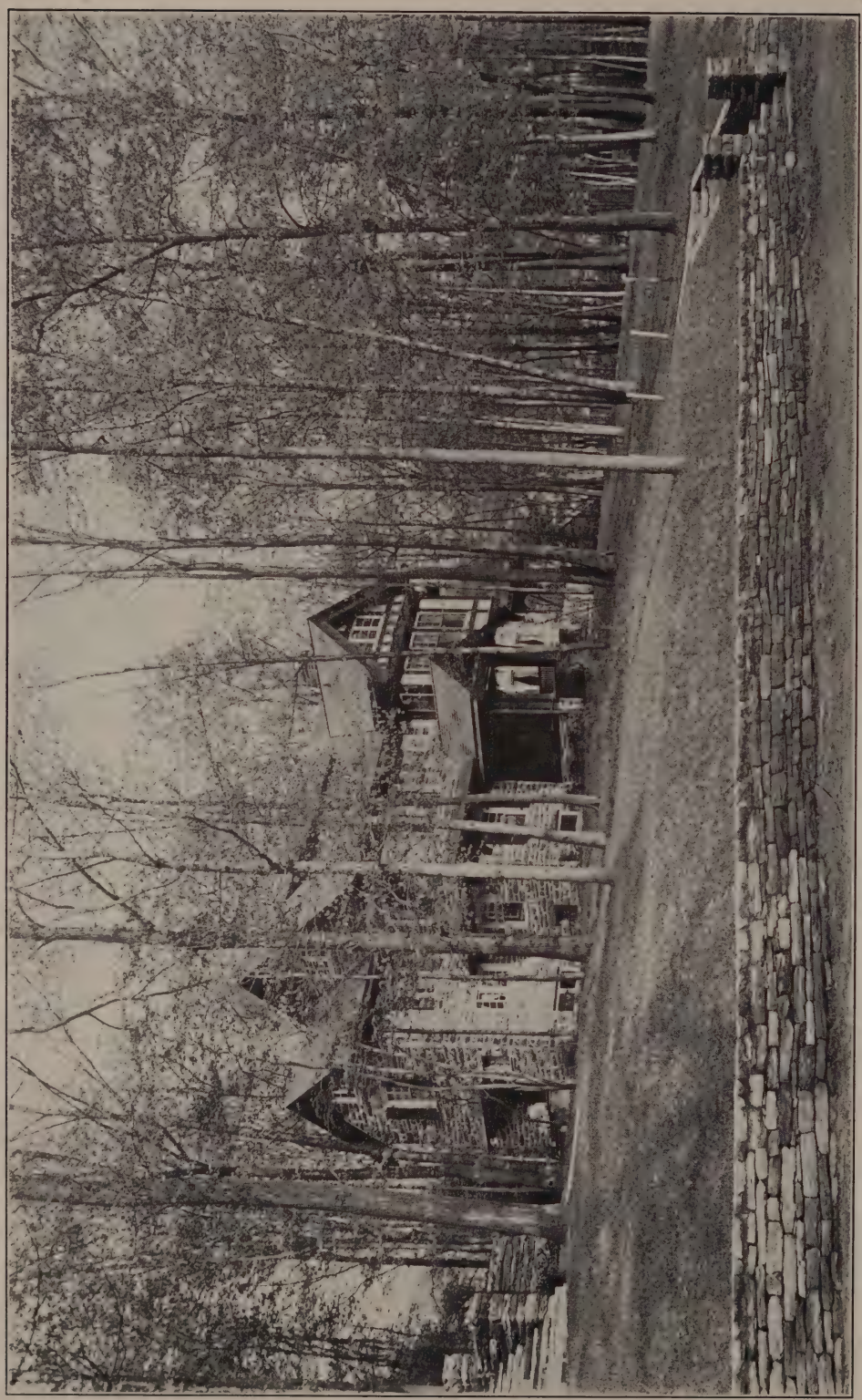
Katharine C. Budd.

Where electricity is cheap, it is used in the ideal kitchen. Ovens, broilers, stoves and saucepans are to be found, as well as the familiar chafing dish and tea kettle. A complete outfit occupies little space.

RECENT SUBURBAN HOUSES

ILLUSTRATED

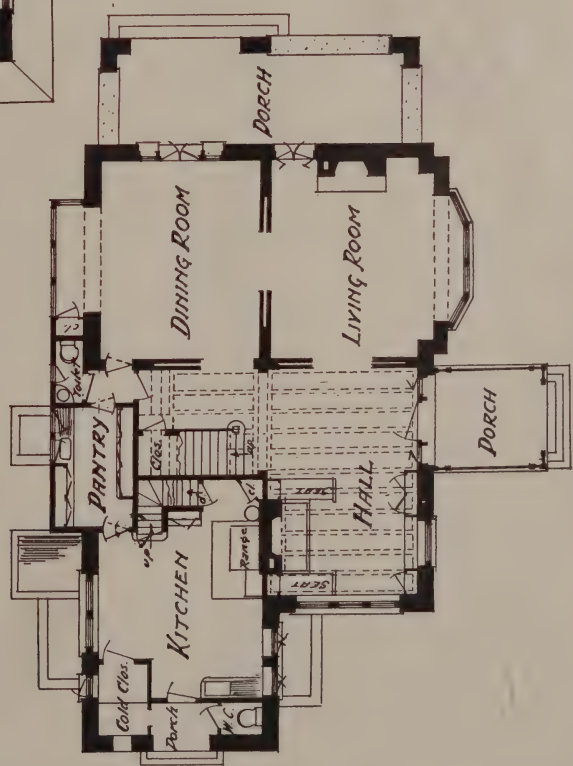
THEIR PLANNING
DESIGNING AND
INTERIOR DECORATION



HOUSE OF C. A. ZIEGLER, ARCHITECT.

Germantown, Pa.

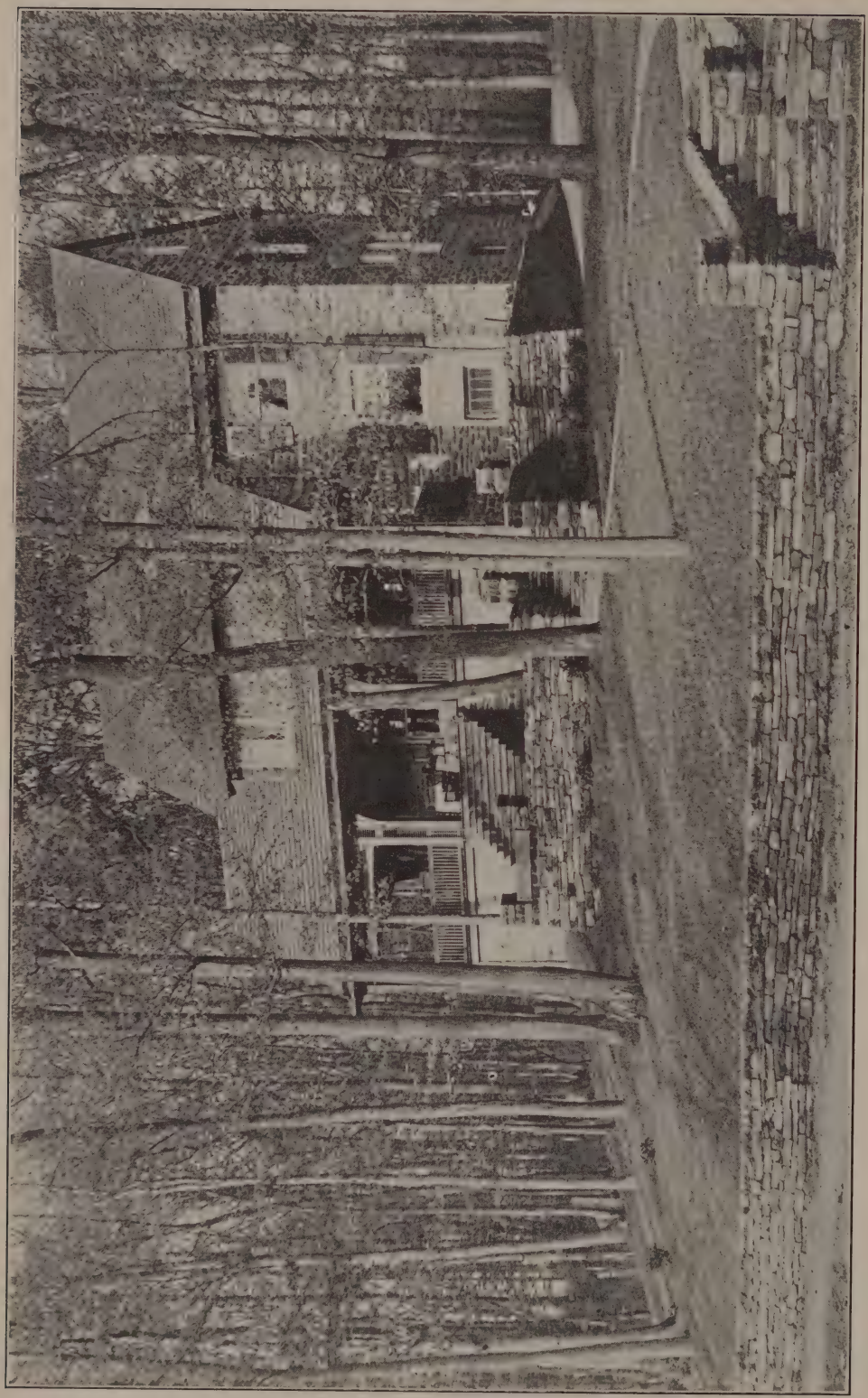
Plan of Second Floor.



Plan of First Floor.

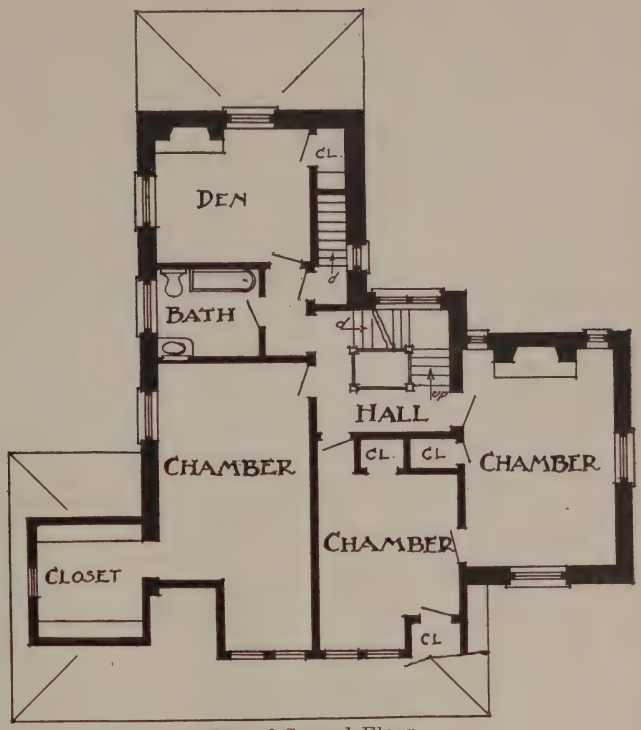
HOUSE OF C. A. ZIEGLER, ARCHITECT.

Germantown, Pa.

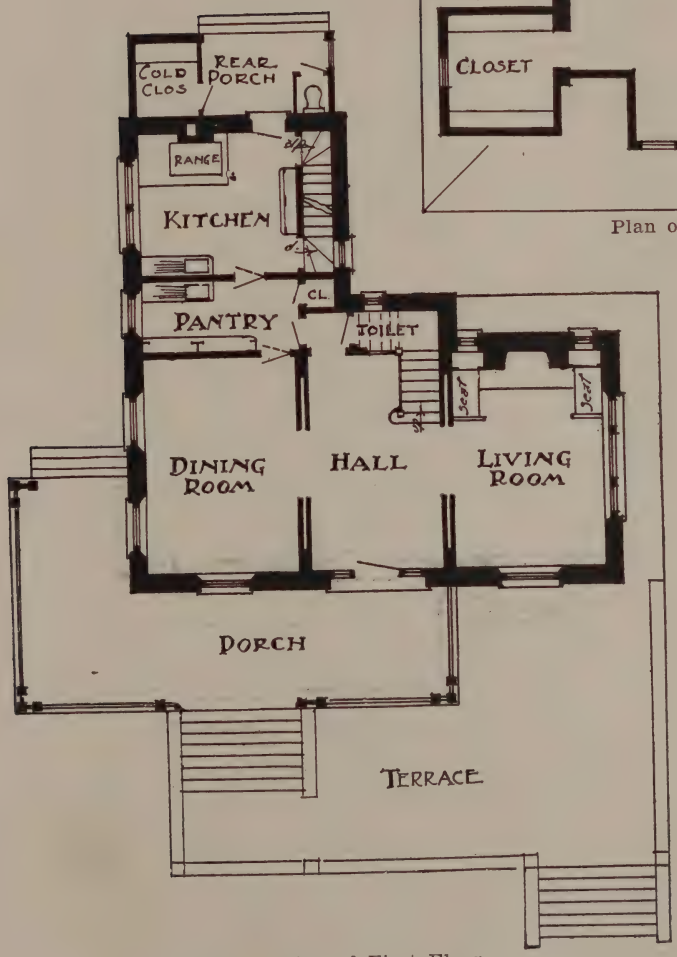


MR. DAVENPORT PLUMER'S HOUSE. Duhring, Okie & Ziegler, Architects.

Germantown, Pa.



Plan of Second Floor.

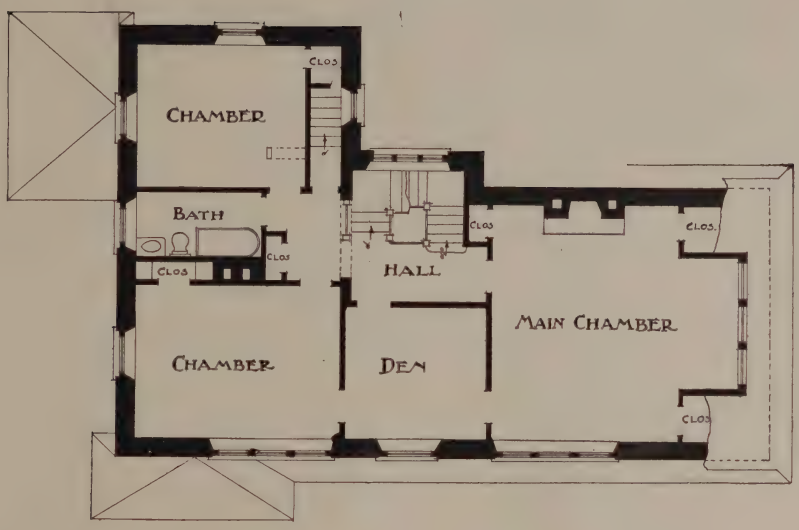


Plan of First Floor.

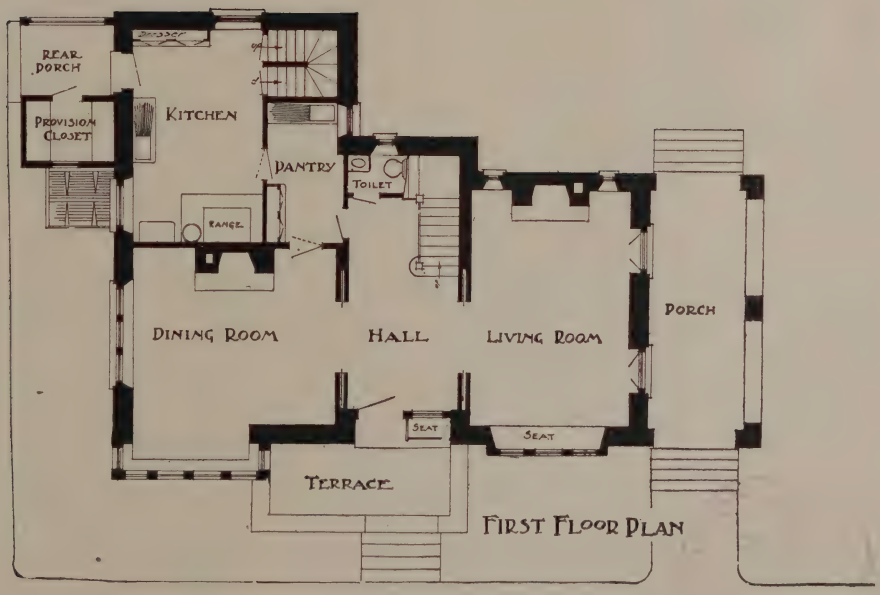
MR. DAVENPORT PLUMER'S HOUSE.

Germantown, Pa. Duhring, Okie & Ziegler, Architects.

Typical suburban house in the vicinity of Philadelphia, built of Germantown stone, which is there so easily procurable as to be available in houses of moderate cost.
Duhring, Okie & Ziegler, Architects.



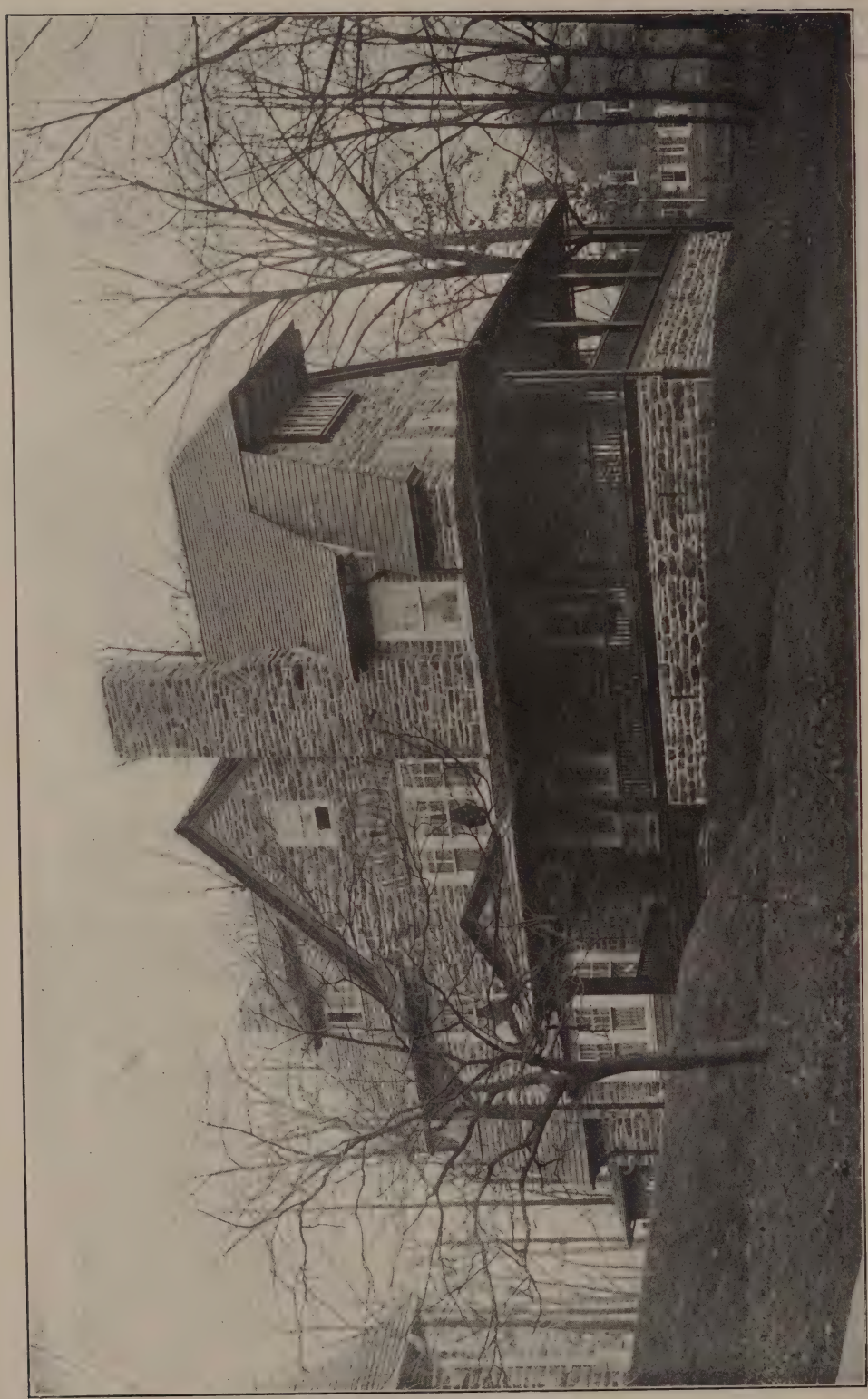
Plan of Second Floor.



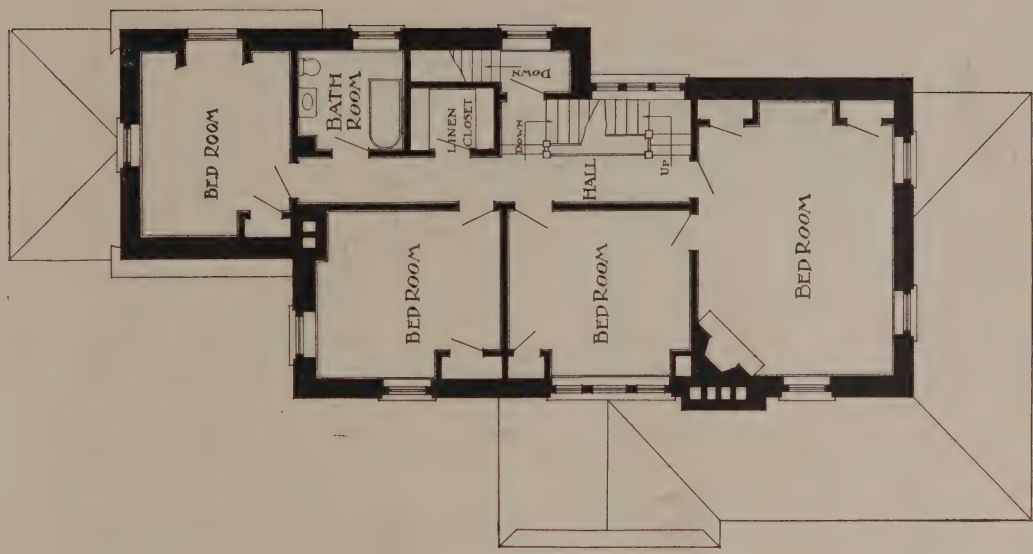
Plan of First Floor.

PLANS OF HOUSE SHOWN ON OPPOSITE PAGE.

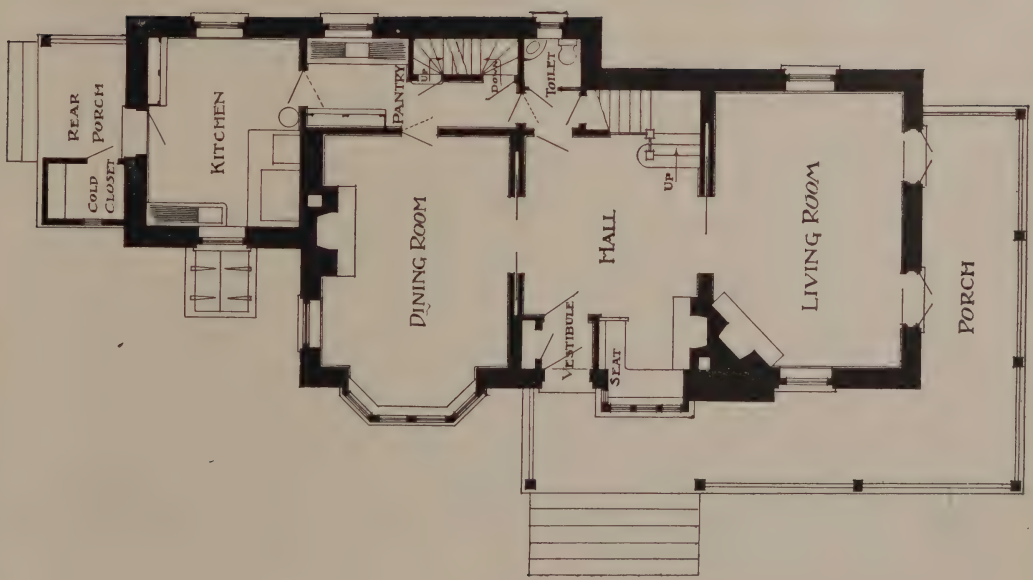
Duhring, Okie & Ziegler, Architects.



A VARIANT OF THE TYPE SHOWN IN THE PREVIOUS ILLUSTRATION.
Duhring, Okie & Ziegler, Architects.



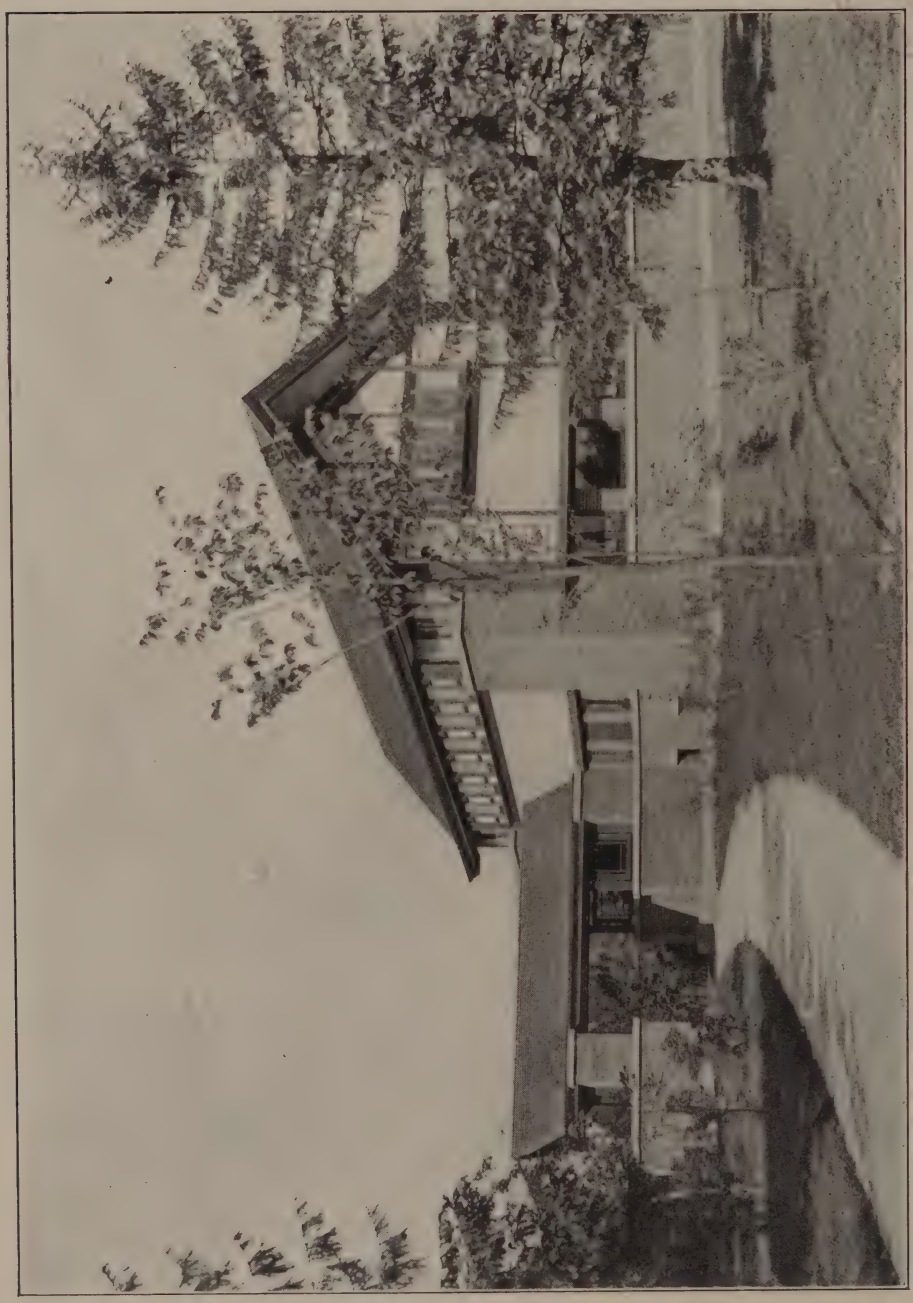
Plan of Second Floor.



Plan of First Floor.

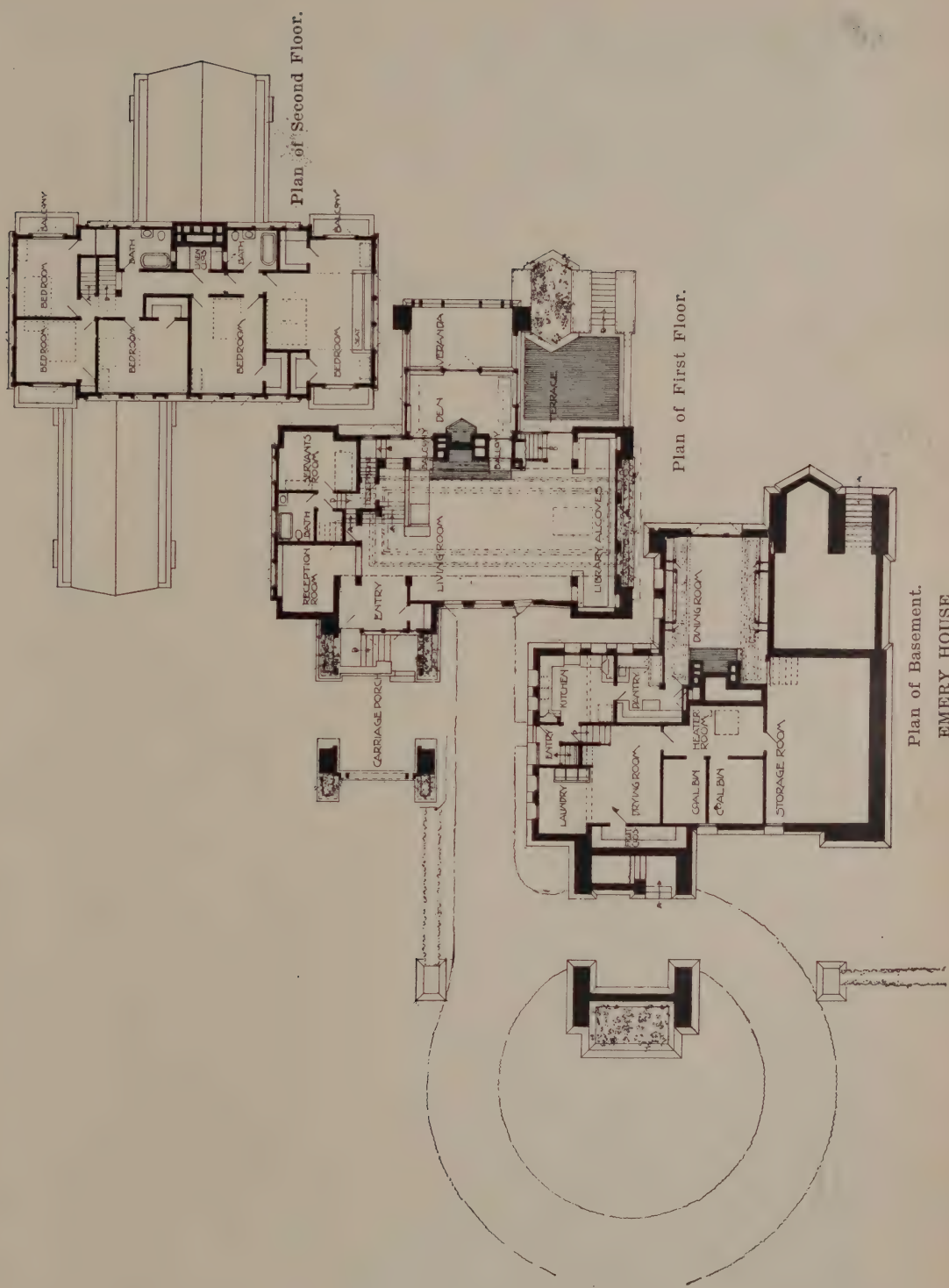
PLANS OF HOUSE SHOWN ON OPPOSITE PAGE.

Duhring, Okie & Ziegler, Architects.



EMERY HOUSE—DRIVEWAY APPROACH. Walter Burly Griffin, Architect.

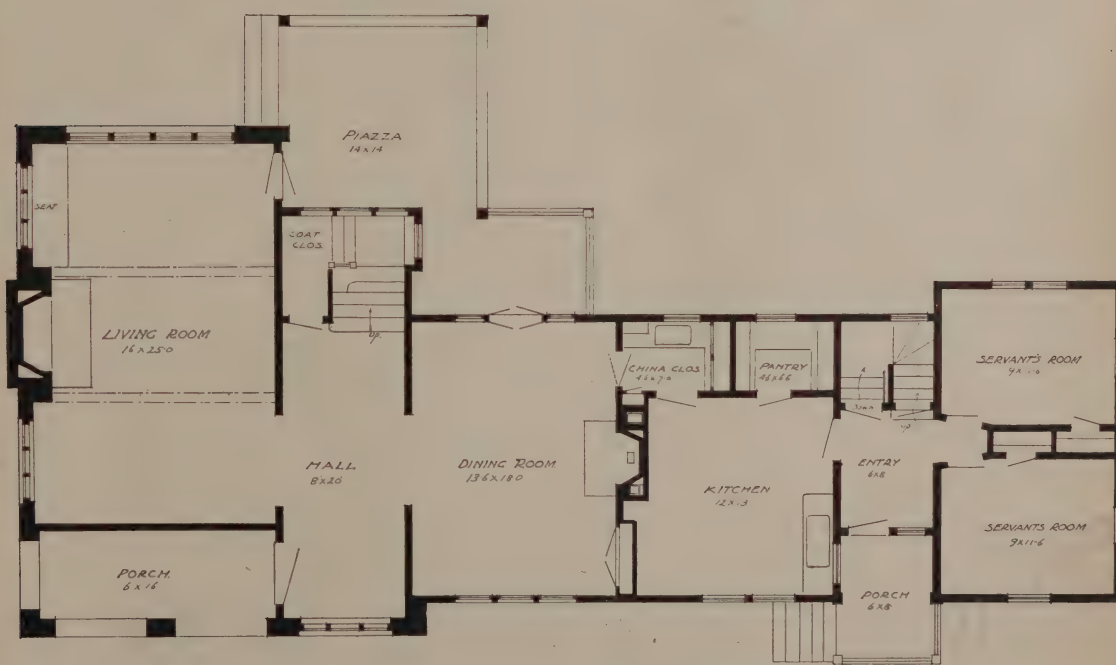
Elmhurst, Ill.


Plan of Second Floor.
BALCONY
BEDROOM
BATH
CLOS
BEDROOM
BEDROOM
BEDROOM
BEDROOM
BALCONY
Plan of First Floor.
VERANDA
DEN
TERRACE
BALCONY
BALCONY
SERVANTS ROOM
BATH
RECEPTION ROOM
ENTRY
LIVING ROOM
LIBRARY ALCOVES
CARRIAGE PORCH
Plan of Basement.
DINING ROOM
ENTRY
KITCHEN
PANTRY
HEATER ROOM
LAUNDRY
DRYING ROOM
COAL BIN
COAL BIN
STORAGE ROOM
EMERY HOUSE.
Walter Burly Griffin, Architect.
Elmhurst, Ill.

HOUSE OF MR. H. D. MURPHY. Robt. C. Coit, Architect.

Winchester, Mass.

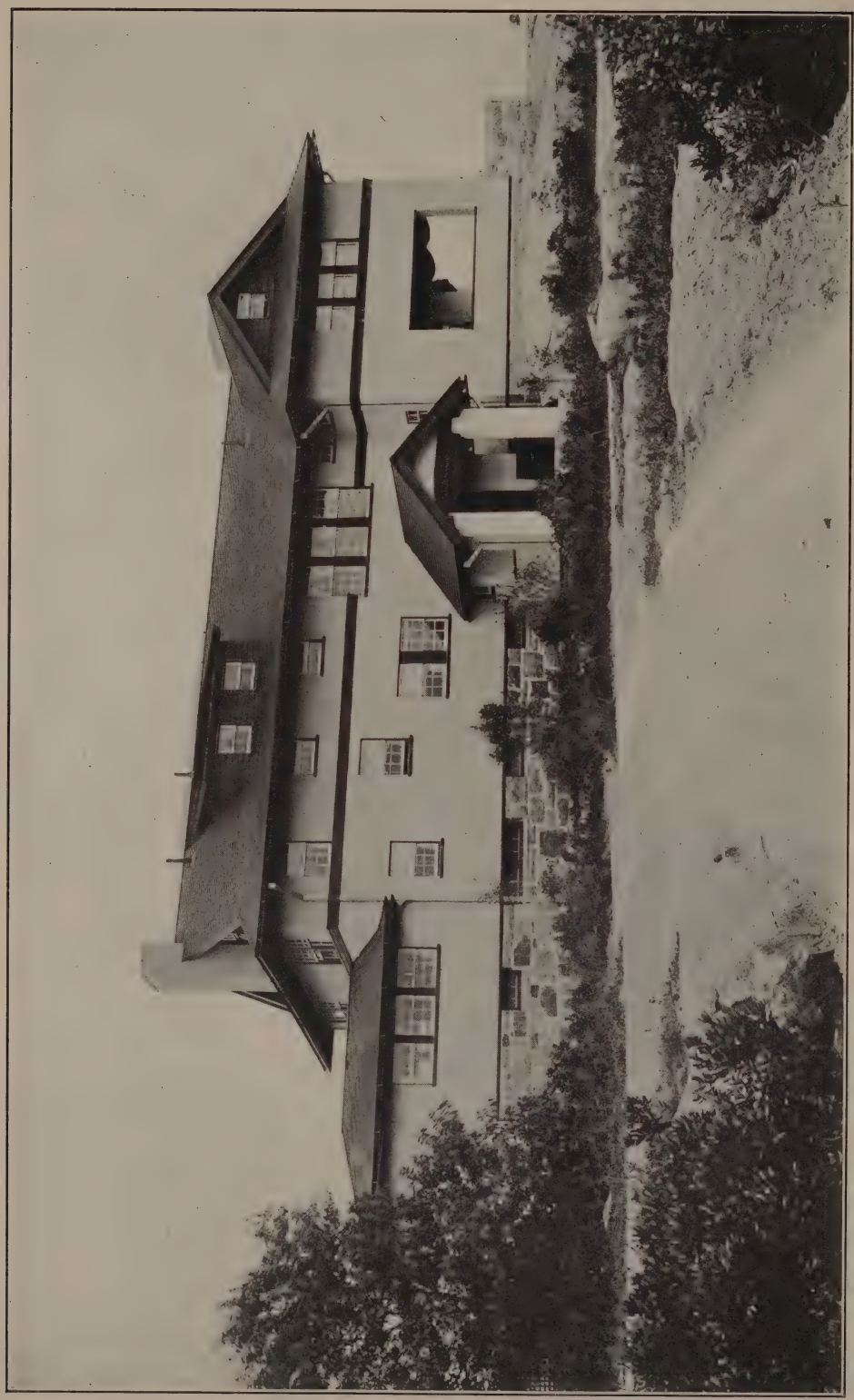
SECOND FLOOR PLAN



FIRST FLOOR PLAN

HOUSE OF MR. H. D. MURPHY.

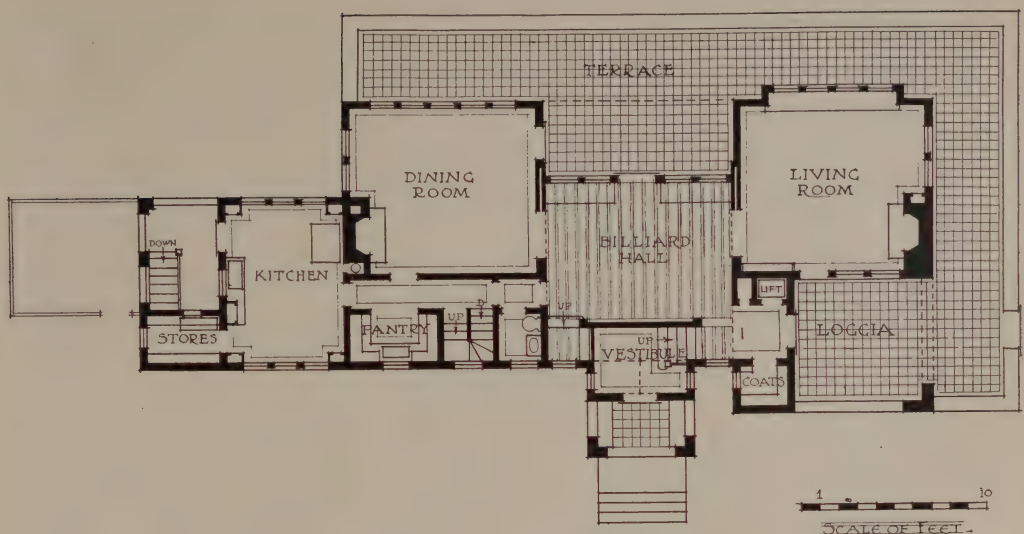
Winchester, Mass. Robt. C. Coit, Architect.



HOUSE OF THE MISSES WHEELER AND GAVITT—APPROACH.

Cleveland & Godfrey, Architects.

East Gloucester, Mass.

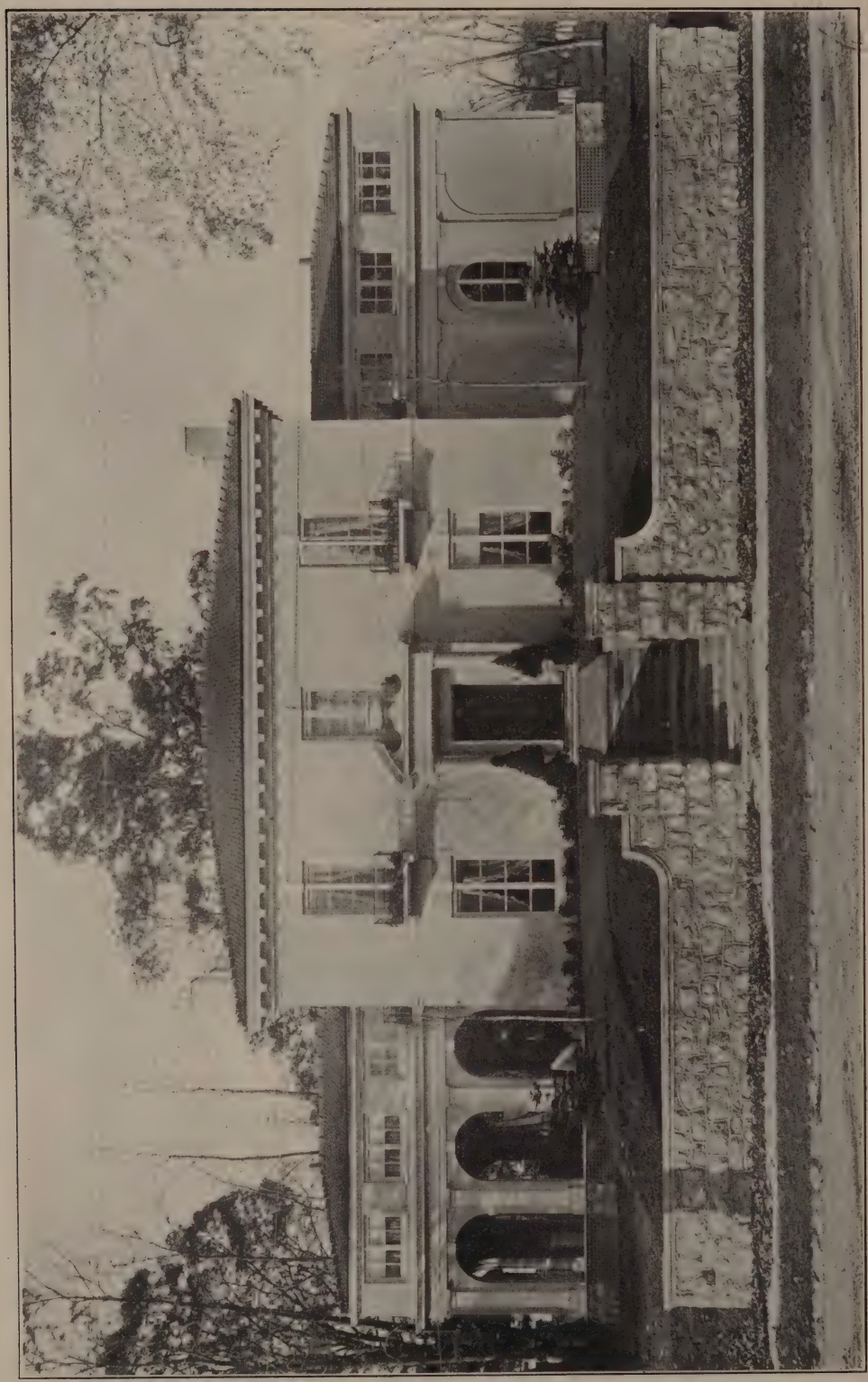


FIRST FLOOR.

SECOND FLOOR.

HOUSE OF THE MISSES WHEELER AND GAVITT.

East Gloucester, Mass. Cleveland & Godfrey, Architects.



Pelham Manor, N. Y. HOUSE OF OSWALD C. HERING, ARCHITECT.

Plan of Second Floor.

Plan of First Floor.

HOUSE OF OSWALD C. HERING, ARCHITECT.

Pelham Manor, N. Y.

AN EFFECTIVE TREATMENT OF FIREPLACE IN LIVING ROOM.

THE LIVING ROOM OF AN INEXPENSIVE BUNGALOW.

LIVING HALL, STAIRCASE AND FIREPLACE NOOK.

A COMPOSITION OF LIVING ROOM AND STAIRCASE, IN WHICH THE KEYNOTE IS A FRANKNESS IN THE USE OF WOOD.

HALL WITH STAIRCASE CONCEALED.

STAIRCASE AND FIREPLACE EFFECTIVELY COMBINED IN A COSY SEAT.

AN UPSTAIRS LIBRARY.

A RECEPTION ROOM IN WOOD.

A SPACIOUS STUDIO INEXPENSIVELY CONSTRUCTED.

A QUIET LIBRARY.

A DINING ROOM IN WHICH THE FURNITURE IS PART OF THE DECORATIVE SCHEME.

A COLONIAL DINING ROOM.

THE SPACE ABOVE THE FIREPLACE IS DECORATIVELY TREATED WITH CHINA SHELVES.

A DINING ROOM WITH SIMPLE DARK COLOR SCHEME.

A DINING ROOM INEXPENSIVELY FINISHED.

A DINING ROOM ADMIRABLY FURNISHED.

"PENLLYN HOUSE," RESIDENCE OF MR. ARTHUR KING WOOD.

Ardsley-on-Hudson, N. Y. Ewing & Chappell, Architects.

NOTES & COMMENTS

AUTOMOBILES AND SUBURBAN HOUSE SITES

In the development of suburban tracts, it would be interesting to know—if accurate statistics could be disinterestedly given—whether the automobile has affected the popularity of hill top sites. Has the home site with a noble view, with the four winds of heaven blowing upon it, and with the city's noise and smoke and lights lying far below, lately lost some of its popularity because the strain on automobile engine or battery is rather more obvious than on horseflesh? Or has the effect been just the reverse, since the very powerful machine climbs over the hill at a faster rate than the horses did? Perhaps the hill top is as readily finding purchasers as ever, but is finding a different kind of purchasers. Perhaps it has lost some of its charm for those who had a single plodding horse and now own an auto of low power, while it may have gained in favor with the very rich who—busy and unaccustomed to delays—had chafed at the weariness of horses in hill climbing; but love the birdlike flight of a great machine as it triumphs over obstacles of topography. If there has been such change, it will nearly concern architects, for they will have to design large and pretentious houses for elevated sites. The Rhenish castle will not furnish an appropriate model, the Swiss chalet won't do, and the suburban frame house looks scarcely secure and warm enough for such a position. And what about the garden? Are sumptuous terraces and balustrades to come into favor?

AN ENGLISH PAPER ON TOWN PLANNING

An editorial in the Oxford (England) Tribune on "Town Planning," being based on a report issued by the English Garden City association, discusses the subject with more enlightenment and interest than one can usually look for in newspaper consideration of the subject. In Europe, it may be premised, town planning does not mean that city remodeling to which we give the name in America. It means the planning of model new towns, of the scientific planning of the unconstructed suburbs of old towns. As such, the economy resulting from such work is properly emphasized. It saves the taxpayers from frequent calls to affect "expensive slum-clearances, to widen at prodigious cost narrow and inconvenient thoroughfares, to buy at excessive prices land for schools, public buildings, and open spaces. In a word, it merely seeks to apply the lessons learned from past mistakes to the future development of cities. It embodies no mere sentimental desire for beautiful surroundings, fine architecture and spacious streets—though it includes all these desirable things—but is of practical and vital importance to the health and well-being of living men and of the great bulk of the citizens to come." Considering the health point of view alone, the paper continues: "Model cities and suburbs are no day-dream possibilities; they are already in existence, and from them we get the following figures: Whereas the average death rate for the United Kingdom is 16 per 1,000, at Port Sunlight it is only 8.6. In congested and unsanitary slums the death rate runs up to 40, and we are allowing new slums to grow up where we might have had other Port Sunlights. Or, to take another test, the Bourneville schoolboy is on the average four inches taller than the Birmingham schoolboy, and measures three inches more round the chest."

COMPETITION FOR COTTAGE HOUSES

The Chamber of Commerce in Rochester is conducting a "competition for plans for cottage houses." The competition closes July 1, and is for the best designs for single houses to cost respectively $1,500, $1,250 and $1,000. Six hundred dollars are offered in prizes, this aggregate sum being broken into three prizes for each type of house; while honorable mentions are to be given to the designs that are fourth and fifth in the order of merit for each. The houses must be suitable for a town or city lot not less than 40 by 100 feet. No restriction is put upon the style or mate-

rials; but it is required that the plans shall be complete—including bathroom, with three fixtures; sewer, water and gas connections; heating arrangements, etc. The drawings must be accompanied by complete building specifications, and a bona fide signed bid of a reliable builder (giving his address) to construct the completed houses in the different classes in groups of ten on the same tract of land for the prices named. The chief considerations in making the awards are to be convenient interior arrangement, economical construction and tasteful appearance; and the competition grows out of realization of an urgent need for inexpensive cottage houses for workingmen, to take care of the city's rapid growth in population. The chamber reserves the right to publish the plans; and if good designs are secured the matter may become of much more than local importance, since the need is one common to all the smaller cities. The competition applies, of course, as the size of the lot shows, mainly to suburban construction.

PLANS FOR ROANOKE

The Women's Civic Betterment Club of Roanoke, Va., has beautifully published and "presented to the city of Roanoke" the report of John Nolen, of Cambridge, on the city's remodeling. The very thorough and handsome way in which it is issued almost overshadows at first glance the matter contained. For, while it has become a fairly common thing for cities, small and great, to secure expert reports on their possibilities of improvement, the plans for the smaller places are too often inadequately published—the money being all used up in the employment of the expert. There can be no question that the method of presenting the report to the public is hardly less important, as far as the accomplishment of results is concerned, than is the matter itself; and the Roanoke women are certainly to be congratulated on their courage, their enterprise, and the resulting popular convincingness of the report which they have secured.

As to the report itself, Mr. Nolen has made a conscientious study, and while he asserts that his plan does not pretend to be a complete guide, yet he lays down a program which, if carried out, will make Roanoke a very attractive place in which to live or visit. Four main suggestions stand out in particular. These are: (1) The improvement of the city plan by the widening of Jefferson Street and Tazewell Avenue, the extension of Patterson Avenue, and the opening up of a space of suitable size and agreeable proportions at their conjunction. These changes would provide three hundred-foot avenues, running from the heart of the city south, east and west. Aesthetically, "they would give accent to the city plan—an indispensable factor"—and relieve the present monotony of uniformly narrow streets. They would also perform most valuable traffic service. (2) The grouping of public and semi-public buildings on Jefferson Street or in the neighborhood of Market Square—alternative plans for this being offered. (3) A more attractive surface development of the streets, and the establishment of main country thoroughfares of approach. (4) The preservation of such natural landscape features of the neighborhood as are most available and beautiful, as a basis for a system of parks and parkways. As a method of carrying out the recommendations, Mr. Nolen proposes a long-term loan of a million dollars, and "an enactment that would permit the city to include in its purchases, when necessary, the adjacent property, reselling the same with profit, under proper restrictions."

WANTED: RECUTTING, NOT PATCHES

The latter statistics and others of similar import, transferred to charts and photographs which those who ran could read, were a prominent feature of the Congestion of Population exhibit in New York in March. There are some who think that civic improvement has not made the progress that all the writing about it would suggest. Perhaps that is true, though in this as in many other things the distance traveled is not as accurate a measure of progress as is the resistance overcome. At all events, it will mean a great impetus to the town planning movement if social workers and philanthropists take it up as the artists and architects have done. Dr. Adler, at the Congestion Conference, said that "the purchase on a grand scale of land consecrated to the erection of dwellings for the poorer class, and with the understanding that the rent should not amount, say, to more than 4 or 5 per cent. on the original investment, would be an act of veritable statesmanship." He believed that while the well-to-do might help, he "looked to the very wealthy to set the pace by a supreme benefaction," and thought the golden opportunity was offered now—when the bridges and tubes are connecting Manhattan with Long Island and New Jersey, and are

making large tracts of comparatively low priced land accessible for such development. The City Club has already taken up the subject of factory removal to the suburbs with various manufacturers; but as Mr. Robinson pointed out, again in a paper at the Conference, that question is largely economic and must be solved in an economic way. The factories will move out of lower New York, for example, not primarily because the owners of them are sorry for the crowding of the poor and for the strap-hanging on the subway; but because superior transportation facilities are there offered to them for the handling of their freight, because rents are lower, and because the efficiency of their labor is increased through the greater healthfulness and contentment of employees. It is sheer nonsense to try to relieve congestion in the East Side of New York simply by tearing down tenements and creating open spaces. That, as the paper stated, may lower the density of population per acre while actually increasing it per building. The children may have improved opportunities for play, but is it not "at the cost of a little less space in which to sleep?" The question suggests one reason that we do not get on faster in alleviating modern urban conditions. In trying to adapt the ancient and outgrown city form to new and tremendously insistent municipal requirements, too many persons who take only a narrow view have their way. There must be a playground, there must be a small park, there must be a bathhouse and a civic center—all excellent things, indeed, but at best only patches on an old-fashioned garment. The garment needs to be entirely replanned and recut to be brought down to date. When a truly comprehensive view is taken—and the more diverse and numerous the various agencies are that give attention to these matters, the sooner such a view will be possible—we may expect something radical. And when we have that there will be mighty progress. In the suburbs the opportunity is all before us and it would be strange short-sightedness now to let them grow up in the old way.

ADVERTISEMENT PROTESTS

The English Society for Checking Abuses of Public Advertising has published in a leaflet some letters that make an incomplete, but interesting, story. It is one that has suggestion for this side of the water. The first letter, which bears date of Dec. 7, and is signed by Walter Crane, William Strang, Joseph Pennell, and ten others who are hardly less well known, is addressed to the editor of the London "Times." Stating that "last night an illuminated advertisement appeared, for the first time, on the Shot Tower, between Charing Cross and Waterloo bridges," and that it "absolutely disfigured" the city, the letter asked the aid of the "Times"—as all letters from indignant Englishmen do—in having it removed. Following this, Crane, Pennell, Sidney Lee, Captain Hemphill—who is deputy chairman of the London County Council—and eleven others addressed a letter "To the London County Council and certain Societies interested in Architecture, Archaeology and the Defense of the Picturesque." It said: "The plague of flashing electric light advertisements and sky signs in our cities at night is on the increase, and seriously threatens the beauty and impressiveness of London, destroying architectural scale and dignity, and vulgarizing some of the most striking and interesting spots of our metropolis. . . . The chief offenders in this way are a few large, well known firms, and it becomes a question vital, not only to artists, but to everyone who values the architectural beauty and artistic aspects of London, how long we are going to tolerate these insults to the eye?" The letter closed with an appeal for united action to restrain the abuses of advertising. Of course, the society for checking such abuses had acted also, addressing a memorial to the County Council, and its secretary writing a letter which was published in the "Times," "Standard," "Telegraph," etc. The memorial which was enclosed in the letter referred specifically to the advertisement on the Shot Tower, and continues: "The duty of fostering taste and respect for picturesque effect is generally recognized, and in London, especially, great and costly additions have been made by corporate, or private, munificence, to the grace and dignity of out-of-door scenes. We submit respectfully that the advantage gained by this outlay is, to a large extent, nullified by the parallel growth in scale and volume of advertising disfigurement. The view from the bridges on the Thames Embankment would, if it were not spoilt, give delight to thousands every hour, without imposing any charge upon the rates. In its river London possesses a people's park, which costs absolutely nothing to create or maintain. Yet the charm is destroyed, at any rate for the seeing eye, by the multiplication of vivid signs, which dominate and degrade the whole. We would ask the County Council, on distinct grounds of utility, to take steps to restore, for the intelligent

enjoyment of the public, the quiet dignity and beauty of the great highway." Letters then follow from the President and Council of the Royal Academy and from the Council of the Society of Arts. On Jan. 7, a letter was written to Sir Thomas Lipton himself, whose firm it seems was the offending advertiser. The letter, in part, says that, "If you think it well to dismantle the apparatus on your tower, you will have, as a set-off to the sacrifice (which we know would be very serious) the appreciative gratitude of a very large class of people, for whose judgment and motives you entertain, we are sure, no ordinary respect. They include men and women of every class. For them the river is a thing of beauty. The barges and bridges and mudbanks make up, at every point, a picture that gives them pleasure of the best kind. Every Academy exhibition shows what the artists think and feel about it, and the paintings please only because the subject of them pleases. You will understand at once their reason for seeing with pain features multiply, which, just because they are inconsistent with the quiet dignity of the scene, destroy the charm." The letter is acknowledged next day by the secretary of Sir Thomas, who writes that Lipton is en route to India; but that the matter will be taken up wth him as quickly as possible. The pertinent suggestion of all this is that influence counts, in correcting nuisances even more than in some other things; and that while it is all very nice and proper for ladies, and well meaning gentlemen whose claim to fame is that they write such protests, to undertake to turn back the advertising tidal wave, the way to put limits to it is for the leaders of the city's art and letters, and especially of its architecture—for the men whose names are known, whose opinions are universally respected, and who have done things—to come out flatly and make a stand. In the smaller cities this applies as much as it does in New York. The big men, not so much because they do not care as because they are very busy, leave protesting to the little fellows—who, for the most part, beat the air. If they try to reach the principal advertisers, the office boy stops them; while the leading architect, the great lawyer, the men who have given proof of the worthwhileness of their views, could walk right into the private office and get a respectful hearing.

In the April issue an illustration on page 304 of the University of Pennsylvania's Biological Laboratory Building was erroneously entitled the university library.

A VALUABLE PUBLICATION

Under the title, "A Holiday Study of Cities and Ports," Robert S. Peabody has written, and the Boston Society of Architects has published, what the author modestly describes as "notes of travel, offered to the Commission on the Improvement of Metropolitan Boston by one of its members." The result is a valuable contribution to municipal aesthetics and to the general theory of city planning. In this paragraph it is possible to give only a statement of the points covered. Following a brief Introduction, there is a chapter on Waterways, Canals and Canalized Rivers, one on Railroads and Transit Facilities, on Docks, on Commerce, and one on City Planning. Then come chapters on individual cities—as Rotterdam and Amsterdam; Antwerp; Hamburg, Cologne and Berlin; Manchester, Liverpool and London; Paris. The final chapters are, "American Ports" and "How Would Germany Develop a Port Like Boston?" The text is informal and conversational, though filled with valuable data, and is profusely illustrated. The author declares in his introduction that his study has been "hasty" and that his notes are "cursory and probably not perfectly exact in detail." However that may be, they are very full of suggestion and instruction.

NATIONAL ARCHITECTURE AND BUILDING EXPOSITION

During the week of September 14-19 there will be held at Madison Square Garden, in New York, a national exposition in which will be brought together under the same roof and for the benefit of the building public the mutually dependent interests of architect, artist, building material firm, manufacturer and contractor, and, in fact, all the interests which are involved in designing, constructing, equipping and embellishing buildings and their surroundings. Here all these various agencies will exhibit and demonstrate what is best and most approved in their several lines. Here also architects will be well represented by drawings, photographs and models of their best work exhibited in their own way. The idea is a new one in execution, but hardly in conception. The notion of bringing together the several agencies that operate in building activities has existed in this country for many years in the minds of the more farsighted members of the professions and the trades, but

the timidity of the rank and file of these interested bodies has steadily prevented any concerted action that would ensure the success of such a venture. One has heard on occasions when success and cooperation seemed not far distant that "after all it is useless to try to educate the public in matters pertaining to building and architecture, the economic conditions of our time are not favorable;" or, "you cannot bring together the antagonistic faiths of commerce and art, they will never agree." To the first of these objections the faithful have continued to answer that the public cares not for building and architecture not because it is obstinate but because it has had no opportunity to see these absorbing subjects fairly, instructively and attractively presented; and that the sooner the building and architectural and artistic interests realized the true state of the public mind on technical and artistic building matters and acted on the results of their realization, the sooner would they be able to cease complaining of the unsympathetic public.

As for the second objection, namely, that it is impossible to bring together the agency that creates with the one that supplies the material in which is created, on the score of incompatibility—that is, one of the baneful results of modern commercial tendencies which have so effectively estranged the artist from the artisan, to the detriment of their mutual efficiency and progress. But there is coming to us a realization that art and commerce are not antagonistic and that the cultured public is far from indifferent to either. Such expositions as the one which is the occasion of these remarks cannot fail to strengthen our belief in a growing public interest in the works and products of artist and manufacturer.

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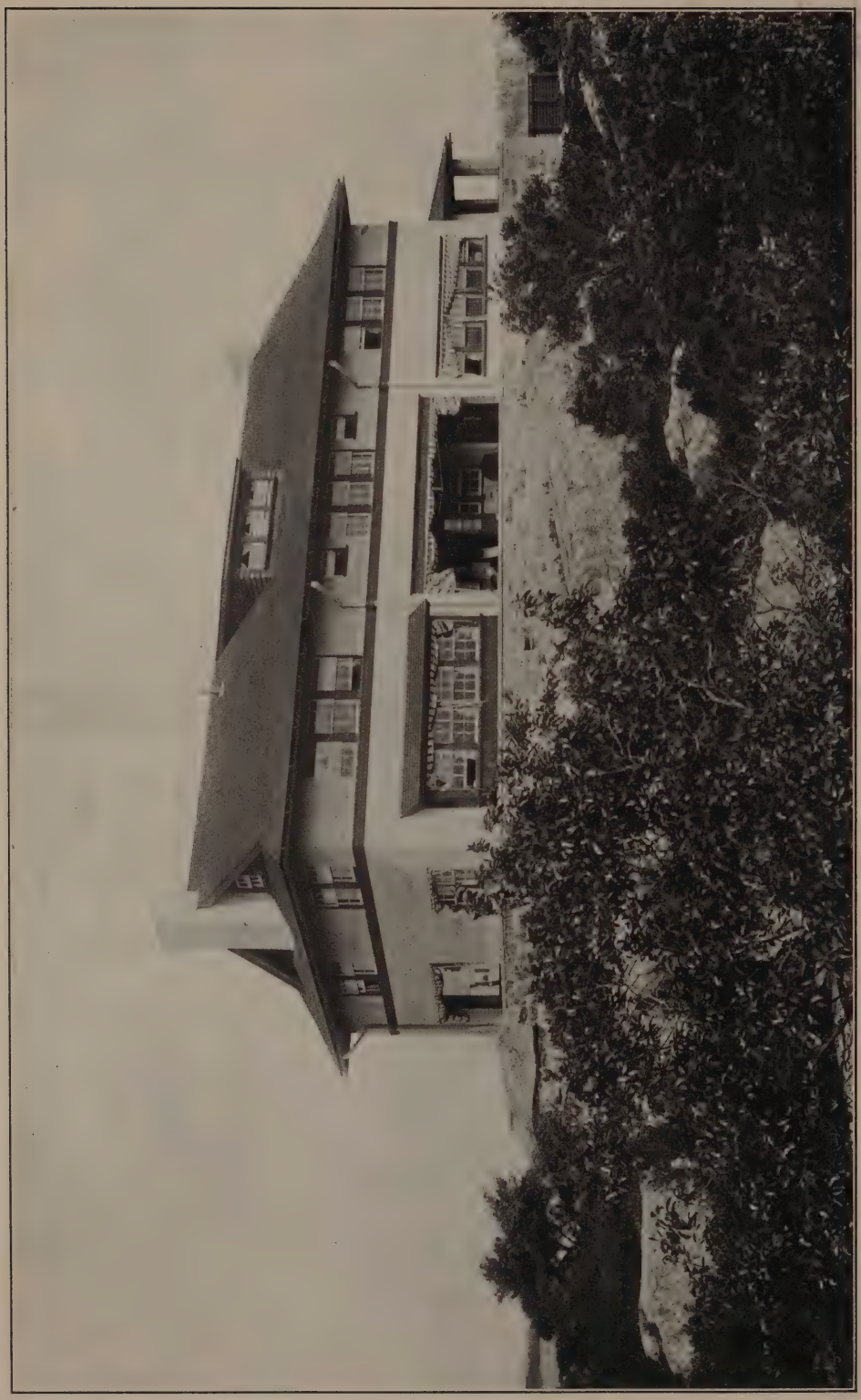

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(See also pages 490 and 491.)

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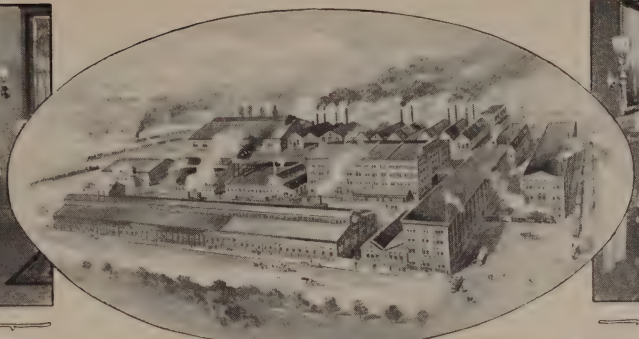
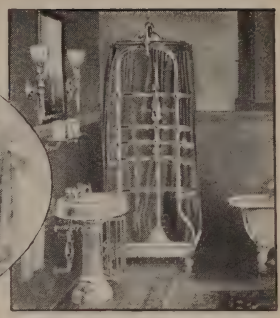
See SWEET'S INDEX, pages 620, 621





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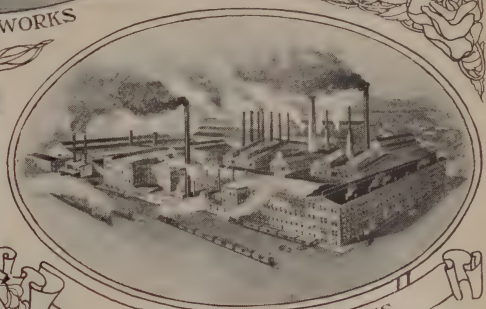

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